IN THE SUPREME COURT OF JUDICATURE
IN THE COURT OF APPEAL (CIVIL DIVISION)
ON APPEAL FROM THE HIGH COURT OF JUSTICE
(MR JUSTICE MANTELL)

QBENF 96/1580 CMS1

Royal Courts of Justice
Strand
London WC2

Wednesday, 11 February 1998

B e f o r e:

LORD JUSTICE HOBHOUSE
LORD JUSTICE BROOKE
SIR JOHN VINELOTT

- - - - - -

JOHN RATCLIFFE

PLAINTIFF/APPELLANT

- v -

PLYMOUTH & TORBAY HEALTH AUTHORITY
EXETER & NORTH DEVON HEALTH AUTHORITY

DEFENDANTS/RESPONDENTS

- - - - - -

(Transcript of the handed down judgment of
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MR H BURNETT QC with DR R OUGH (Instructed by Messrs Eastleys, Devon TQ4 5DW) appeared on behalf of the Appellant

MR M BROOKE QC with MR A HOPKINS (Instructed by Messrs Bevan Ashford, Bristol BS1 4TT) appeared on behalf of the Respondent

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J U D G M E N T
(As approved by the Court)

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Wednesday, 11 February 1998

J U D G M E N T

LORD JUSTICE BROOKE:

1. This is an appeal by the Plaintiff John Ratcliffe from a judgment of Mantell J sitting at Exeter Crown Court on 18th October 1996 when he dismissed the Plaintiff's claim for damages for negligence against the two Defendant health authorities.

2. Whatever the result on liability, it is common ground that Mr Ratcliffe has had a very unpleasant experience and is still suffering lasting pain. His general damages were assessed by the judge at £40,000, and his special damages, mainly for lost earnings, were agreed, subject to liability, at £145,000 (both figures exclusive of interest). On 21st September 1989 he went into the Princess Elizabeth Orthopaedic Hospital at Exeter for a triple arthrodesis of his right ankle, following an accident when he was out walking on Dartmoor two years earlier. He was 48 years old, and apart from his ankle injury he was an entirely fit man. The operation took place two days later. He was given a general anaesthetic. He was also given a spinal anaesthetic to ease the pain he would inevitably suffer from his ankle during the hours that followed the operation. The operation itself was a success, but unhappily he was left with a very serious neurological deficit on the right side from the waist downwards. He still has the general use of his leg, but he has effectively lost all sensation in it, and is in a continual state of very severe pain throughout the affected area. He also suffered from numbness on both sides of his penis, and expressed difficulty in ejaculating. Although there have been slight variations in his symptoms since 1989 he has made no recovery of any significance, and his condition can for all practical purposes be regarded as permanent.

3. It is fair to say that the cause of this neurological deficit has always been something of a mystery, and until June 1995 there was no radiological or other evidence of any damage to the spinal cord that might have accounted for the trouble. In that month, however, a MRI scan was taken which revealed a lesion in the spinal cord at the T11-T12 level, and a more indistinct lesion higher up at about T9. This did not eradicate the mystery, since the Defendants maintained that the spinal injection was administered at the L3-L4 level, and the neurological weaknesses were consistent with much more

extensive damage stretching from T8 to S3. There was the additional mystery that some of the neurological findings were consistent with a bilateral lesion or lesions as opposed to a single long lesion on the right hand side of the spinal cord. During the course of the litigation the Plaintiff made a number of different allegations of negligence against different people, but by the time of the appeal to this court most of these charges had fallen away, and there is no need to mention the discarded allegations in this judgment.

4. After a number of fits and starts (including a trial which started before Butterfield J in December 1995 and had to be aborted due to Mr Ratcliffe's illness) the principal neurological issue at the trial was whether Mr Ratcliffe's symptoms could be ascribed to a single long lesion (known as "the Nurick lesion" after Dr Simon Nurick, the Plaintiff's neurological expert) or to what was called a patchy lesion, consisting of patchy weaknesses at different levels of the spinal cord from T8 downwards. The identity of the doctor who performed the spinal anaesthetic was also in issue, as was the level at which the injection was inserted, the Plaintiff contending that it was at T12/L1, or conceivably L1/L2. The judge found that Dr Boaden, a consultant anaesthetist, was responsible for the spinal injection at the L3/L4 level, and that he had performed his duties with appropriate care, and he rejected the Nurick lesion thesis. He held that Mr Ratcliffe's symptoms had all come on at the same time, that they should be attributed to the spinal injection, and that by some mechanism as to which he was not able to make positive findings the injection had caused nerve damage. He acknowledged the possibility of some kind of asymptomatic weakness in the central nervous system which the stress of the operation had brought to life.

5. On this appeal Mr Burnett QC did not seriously challenge the judge's rejection of the Nurick thesis as the most likely explanation of the Plaintiff's troubles, although he contended that the judge should have been readier to leave it open as a possible explanation. His main complaint is that the judge dismissed too cavalierly the application of the maxim *"res ipsa loquitur*". He maintained that if

the judge had directed himself properly, he should have said that the Plaintiff's plight raised an inference of negligence, and that if he had evaluated the situation more carefully, he would have been rather slower to accept Dr Boaden's evidence. Once the maxim operated, the onus was on the Defendants to rebut the inference of negligence, and they could not succeed in doing so by raising an explanation of what had happened which only ranked as a possibility: their explanation had to be a plausible one, and he said that the Defendants' hypothesis of pre-existing asymptomatic weakness in the central nervous system did not merit that epithet.

6. It is necessary, therefore, to examine the relevant parts of the expert evidence in some detail. After the factual evidence was complete, the judge heard the witnesses on each side in one special field of expertise after another. Thus he heard the neuro-radiologists (Dr Moseley (Plaintiff): Dr Lewis (Defendants)) first. Then he heard the neurologists (Dr Nurick (Plaintiff): Dr Illis (Defendants). Next he heard the anaesthetists (Professor Aitkenhead and Dr Rosen (Plaintiff): Dr McQuay and Dr Johnson (Defendants)). The final set of witnesses were the neuro-physiologists (Dr Murray (Plaintiff) and Dr Schwartz (Defendants: Dr Schwartz also had neurological expertise). The wealth of expert talent available at the trial is an indication of the difficulty of the problem that confronted the judge. A week elapsed between the end of the hearing and counsel's final speeches, and this enabled counsel to prepare long written submissions which are included in our papers. The judge delivered a reserved judgment three months later.

7. A feature of the neurological evidence was the very late arrival on the scene of a theory based on the possibility of non-systemic vasculitis ("NSV") which featured close to the forefront of the Defendants' case at the trial.

8. As I have already said, the battleground in this action was largely reordered after the revelation of the spinal cord lesion in a MRI scan in June 1995. Six months later, at about the time of the aborted

first trial, Mr Nurick and Dr Illis conducted a joint examination of Mr Ratcliffe and prepared a joint report. Their findings on examination were in these terms, so far as is now relevant:

> "He has no clinical evidence of a peripheral nerve lesion other than minimal sensory impairment in the right hand.
>
> He has a patchy sensory loss or impairment on the right side with an upper level at T10 and with relative sparing of S3 on the right. The sensory disturbance is of all modalities (Touch, Pinprick, Temperature, Vibration sense, and Joint position sense)."

9. They identified two possibilities as regards the anatomical localisation:

> "1. A thin elongated lesion from T8 to S3 involving the right postero-lateral grey matter of the spinal cord
>
> or
>
> 2. A patchy bilateral lesion extending from T9 downwards involving the spinal cord."

10. They said that both explanations accounted for Mr Ratcliffe's pain and sensory disturbance. Dr Nurick's preference for the Nurick lesion was on the basis that this explained the reflex changes and the MRI appearances at T11/T12. Dr Illis preferred the bilateral patchy lesion because it explained the sphincter and the ejaculatory disturbance. Moreover, he considered that the sensory level at T8 was not compatible with the MRI appearances at T11/T12 but was compatible with a lesion there plus the more indistinct lesion (visible on the MRI scan) higher up at about T9.

11. Of the different possible causes they could see no evidence for multiple sclerosis, chronic inflammatory process or vasculitis (by which they meant some form of progressive systemic vasculitis, as in Parkinson's disease), but they could not rule out other possible causes, including ischaemia of the spinal cord. Of this they said that it was compatible with the MRI brain appearance, but there was no evidence as to how localised cord damage could be produced.

12. Dr Illis told the judge that at the time of the joint report he had recently reviewed a book which contained a reference to non-systemic vasculitis (NSV), but that this possibility had escaped his mind when he co-authored the report. There are two passing reference to it, however, in a supplemental

report he prepared the following May just before the trial before Mantell J. During this report he purported to summarise the effect of the joint Nurick-Illis report, which had ruled out systemic vasculitis as a possibility. Under the heading "Vasculitis" NSV now appeared in a passage which read:

> "In some types of vasculitis the involvement is slow, for example in non-systemic vasculitic neuropathy where non-nervous tissue is not involved (ie no other organ outside the nervous system). However, in general vasculitis produces a progressive disturbance."

13. On the following page of this report there was also a passing reference to the possible slow involvement of the disease process in non-systemic vasculitic multiple mononeuropathy, but nobody could reasonably have deduced from this report that NSV was now being strongly relied on as a possible underlying cause of Mr Ratcliffe's misfortune.

14. This thesis broke cover for the first time on the third day of the trial, after the judge had requested the Defendants to state their case more clearly. Dr Schwartz and Dr Illis now produced a short joint report headed "Non-Systemic Vasculitis". It read, so far as is material:

> "Non-systemic vasculitis is a disorder primarily of peripheral nerves which is chronic and usually progressive. This disease has a much better prognosis than systemic vasculitis.
>
> This disorder which was described by Dyck et al (1987) has been recently reviewed by Fathers and Fuller (1996). The disease is rare and usually diagnosed in patients with a peripheral nerve disorder, particularly mononeuritis multiplex ...
>
> Non-systemic vasculitis may become generalised or systemic after some years, so the presence of sub-clinical lesions in the central nervous system (as seen on the MRI) is not surprising.
> The stress of general anaesthesia and surgery could produce physiological, metabolic and immunological changes which could trigger any underlying condition into an active phase."

15. While Mr Burnett understandably protested at the very late exposition of this thesis, he did not submit to us that the judge was wrong to admit it. He accepted realistically that in a case as difficult as this the experts will never stop thinking, and provided that there is no irremediable prejudice caused by the introduction of a new idea a judge should not shut it out, although its late emergence may affect any order for costs he may make.

16. The NSV thesis was based on the presence of some white spots in the brain which showed up in the MRI scan, the evidence, such as it was, of some peripheral nerve disorder following the operation, and the unexplained problems attributable to weaknesses in the spinal court. All these weaknesses were latent and asymptomatic until the stress of the operation and the general anaesthesia triggered them off.

17. There were two learned articles on which Dr Illis and Dr Schwartz principally relied. In the first, entitled "Neurological Deficits following Epidural or Spinal Anaesthesia" (Anaesthesia and Analgesia, Vol 60, No 3, March 1981), Mr Robert Kane reviewed a number of survey reports of spinal patients, covering over 65,000 spinal patients in all. In one cohort of just over 10,000 patients, 12 were found to have suffered from an exacerbation of a previous neurologic disease. In a second article, "Neurologic complications of lumbar epidural anaesthesia and analgesia" by Yuen et al (Neurology, October 1995), the authors reviewed the clinical features of 12 patients who suffered neurologic complications following the processes mentioned in the title to their article, out of a total of 13,000 inpatient epidural anaesthesia procedures performed at their institution in California during the study period. They suggested that their evidence showed that the frequency of severe, persistent neurologic deficits in these circumstances was about one in every 6,500 cases, which was similar to that recorded in the literature.

18. A number of suggested difficulties about his thesis were explored with Dr Illis when he gave evidence. The first was that the evidence of latent NSV in Mr Ratcliffe's brain was equivocal, and the judge was not willing to make any positive findings in this regard. The second was that the evidence of peripheral nervous disorder post-operation was inconclusive. The minimal sensory impairment in the right hand could be attributable to the use of a crutch, and again the judge was not willing to make any positive findings. The third was that there was no evidence in the literature to NSV being detected

anywhere other than in the peripheral nerves (ie not in the brain or the spinal cord). This was common ground, although Dr Illis said that this could be due to the fact that no research had been conducted in this area. The fourth was that there were problems about the postulated trigger mechanism, since the spinal injection was thought likely to have blocked off the usual processes by which the stress of surgery and general anaesthesia could cause shock to the nervous system.

19. So far as this last matter is concerned, Professor Aitkenhead explained to the judge on behalf of the Plaintiff the way in which an effective spinal block is likely to reduce the hormonal stress response, initiated by the pituitary gland in the brain, by 75% for the duration of the block. The judge appears to have been more strongly influenced, however, by Dr McQuay, who gave evidence for the Defendants, who told him that in his experience the unmasking of a pre-existing neurological problem was a real risk with finite numbers on it each time anaesthetists do a spinal injection. He postulated an area of weakness which has a threatened blood supply, at macro or micro level, and said that the final common part of the damage would be that the blood supply was stopped in that area, so that those nerves no longer worked properly. Dr McQuay preferred to use the word “insult” rather than “stress” when referring to the effect of the operation and the anaesthesia. He made it clear that he was not a neurologist, that he knew nothing about NSV, and that some of the points counsel put to him were way outside his territory, but he stood very firmly by his contention, based on his practical experience, that spinal anaesthesia can and does have risks of neurological sequelae.

20. Although Dr Illis could not prove that the cause of Mr Ratcliffe’s troubles was the triggering of some pre-existing NSV-inspired ischaemic weakness in the spinal cord, he described his theory as his best guess, and the only one that made sense to him. He said that the possibility that NSV existed in the peripheral nervous system was supported by the literature, and in the studies which mentioned it there was no evidence that any research had been conducted to see whether it was also present in the central nervous system of the affected patients. It was known that all the vascilitides might affect the

central nervous system, and he could see no logical reason why NSV should be the only vasculitis which did not. If the cause of the problem was not NSV, he postulated as an alternative possible cause ischaemia of some unknown origin in the central nervous system, or some sort of chronic granulomatous process, following damage by some previous trauma or infection.

21. The judge's conclusion on this part of the case was in these terms:

> "... The kind of patchy lesion for which Dr Illis contends is capable of explaining all the neurological signs. Its weakness lies in the proposed aetiology. As acknowledged in the joint report of Dr Nurick and Dr Illis, vasculitis is an unlikely explanation as one would expect the conditions to progress. Such has not been the case here. [NSV] was a late starter. Until early this year it was a condition unknown to Dr Illis or Dr Schwartz. It remains unknown to Dr Nurick. However there are references to it in the literature and I have to acknowledge the possibility of such a condition which may in the event be no different from the examples mentioned by Dr McQuay and others and referred to in the literature, notably in papers by Kane and Yuen, of a rare unexplained neurological complication following upon surgery. What is postulated is some kind of asymptomatic condition which the stress of the operation brings to life."

22. In my judgment the judge was entitled to reach this conclusion on the evidence before him. It was clear that the very experienced medical witnesses were doing their best to explain an untoward event which was on the frontiers of medical understanding. The human body is not a man-made engine. It is possible that a man's body contains hidden weaknesses, particularly after nearly fifty years of life, which there has been no previous reason to identify. Medical science is not all-knowing. The Greek tragedian Aeschylus addressed the unforeseen predicaments of human frailty in terms of the sport of the gods. In a modern scientific age, the wisest of experts will sometimes have to say: "I simply do not know what happened." The courts would be doing the practice of medicine a considerable disservice if in such a case, because a patient has suffered a grievous and unexpected outturn from a visit to hospital, a careful doctor is ordered to pay him compensation as if he had been negligent in the care he afforded to his patient. I will therefore turn now to that part of the case which was concerned with the evidence of what happened when the spinal injection was administered.

23. It was common ground between the anaesthetists who gave evidence at the trial that it would

have been a staggering mistake for the anaesthetist in the present case to have performed the injection at T12/L1 (or even in the gap immediately below that) in the belief that he was at L3/L4. Dr Boaden said that these two gaps were a hand's breadth apart, six or seven inches: Professor Aitkenhead suggested that the gap might be as little as two and a half inches. Dr Boaden said it was his practice to identify the unmistakable iliac crest at L5, and to work up from there, and the operation department assistant would help him in this task. With a thin man like Mr Ratcliffe it would not be difficult to locate the L3/L4 space.

24. The judge described Dr Boaden's evidence in detail. What was particularly important in the present context was that Dr Boaden said that when the time came for him to pass the spinal needle into the place where the injection was to be made, he would in all probability first feel the needle pass through the dura mater and then the arachnoid mater. When it was in the space he wanted to inject, he would aspirate in order to see if clear CSF flowed back up the syringe. He would aspirate again to make sure he was still in the right place, and then inject the drug very slowly, pushing the CSF back into the arachnoid space ahead of the drug. When this exercise was complete, he would aspirate again to check that the needle had not moved. He would be able to ascertain this from the increased volume of liquid he drew back and from the fact that it was not stained.

25. Dr Boaden clearly impressed the judge when he gave evidence, and complimentary evidence about his careful practice was given by Dr Clements, the junior anaesthetist whose handwriting appears in the hospital note. Dr Clements told the judge that after he made a note Dr Boaden would always check it carefully for its fullness and accuracy. On the present occasion Dr Clements's note which starts "Spinal Anaesthetic. L3/4 space. Clear CSF" is supplemented in manuscript on three different occasions by Dr Boaden, who then initialled it at the bottom.

26. After reciting this evidence, and noting that Professor Aitkenhead had told him that in his

experience consultants had on occasion made mistakes as staggering as the one being suggested in the present case, the judge said:

> "Dr Boaden gave his evidence quietly and carefully and impressed me as being a meticulous and conscientious man, as fits the description by Dr Clements. To my mind it is highly unlikely that he could have made the mistake attributed to him. It is even more unlikely when one takes into account that in all probability Dr Clements was present as an observer. But what is conclusive to my mind is the evidence of CSF which has been recorded by Dr Clements in the notes. It would have been theoretically possible for the point of the needle to be resting in the tiny space between the arachnoid mater and the pia mater when the first CSF was withdrawn. It is inconceivable to my mind that it could have been withdrawn from the spinal cord to precisely the same point when aspiration took place after the injection."

27. After saying that it was inherently improbable that nobody would have noticed if a small trace of blood had appeared on the back, the judge found as a fact that the spinal injection was given at L3/L4 and not at either of the other places which had been suggested.

28. Notwithstanding the judge's clear finding that Dr Boaden had exercised all due care in performing the spinal injection, Mr Burnett nevertheless submitted that the judge ought to have paid more attention to the application of the maxim *res ipsa loquitur* in the way he evaluated the evidence, instead of dismissing it quite briefly towards the start of his judgment. He told us that there is a good deal of inconsistency as between different judges trying medical negligence cases about the way they should handle the operation of the maxim in these cases (if indeed, contrary to the views ascribed to some judges, it applies at all in this type of litigation). In these circumstances he invited us to give some guidance about the appropriate way to approach the maxim in medical negligence litigation. It therefore appears to be necessary to devote a little more attention than usual to this topic.

29. The maxim first appears to have surfaced in reported English cases in *Byrne v Boadle* (1863) 9 LT 450 (where a barrel of flour from a warehouse hit the plaintiff as he was walking by), and its classic exposition appeared four years later in the judgment of Erle CJ in *Scott v The London and St Katherine Docks Company* (1865) 3 H&C 596 at p 667:

> "There must be reasonable evidence of negligence. But where the thing is shown to be

> under the management of the defendant or his servants, and the accident is such as in the ordinary course of things does not happen if those who have the management use proper care, it affords reasonable evidence, in the absence of explanation by the defendants, that the accident arose from want of care."

30. In more modern times, there were two authoritative expositions of the operation of the maxim nearly 30 years ago. In *Henderson v Henry E Jenkins & Sons* [1970] AC 282 Lord Pearson said at p 301:

> "In an action for negligence the plaintiff must allege, and has the burden of proving, that the accident was caused by negligence on the part of the defendants. That is the issue throughout the trial, and in giving judgment at the end of the trial the judge has to decide whether he is satisfied on a balance of probabilities that the accident was caused by negligence on the part of the defendants, and if he is not so satisfied the plaintiff's action fails. The formal burden of proof does not shift. But if in the course of the trial there is proved a set of facts which raises a prima facie inference that the accident was caused by negligence on the part of the defendants, the issue will be decided in the plaintiff's favour unless the defendants by their evidence provide some answer which is adequate to displace the prima facie inference. In this situation there is said to be an evidential burden of proof resting on the defendants. I have some doubts whether it is strictly correct to use the expression 'burden of proof' with this meaning, as there is a risk of it being confused with the formal burden of proof, but it is a familiar and convenient usage."

31. In *Lloyde v West Midlands Gas Board* [1971] 1 WLR 749 Megaw LJ said at p 755:

> "I doubt whether it is right to describe *res ipsa loquitur* as a 'doctrine'. I think that it is no more than an exotic, although convenient, phrase to describe what is in essence no more than a common sense approach, not limited by technical rules, to the assessment of the effect of evidence in certain circumstances. It means that a plaintiff prima facie establishes negligence where (i) it is not possible for him to prove precisely what was the relevant act or omission which set in train the events leading to the accident; but (ii) on the evidence as it stands at the relevant time it is more likely than not that the effective cause of the accident was some act or omission of the defendant or of someone for whom the defendant is responsible, which act or omission constitutes a failure to take proper care for the plaintiff's safety. I have used the words 'evidence as it stands at the relevant time'. I think that this can most conveniently be taken as being at the close of the plaintiff's case. On the assumption that a submission of no case is then made, would the evidence, as it then stands, enable the plaintiff to succeed because, although the precise cause of the accident cannot be established, the proper inference on the balance of probability is that that cause, whatever it may have been, involved a failure by the defendant to take due care for the plaintiff's safety? If so, res ipsa loquitur. If not, the question still falls to be tested by the same criterion, but evidence for the defendant, given thereafter, may rebut the inference. The res, which previously spoke for itself, may be silenced, or its voice may, on the whole of the evidence, become too weak or muted."

32. That it is theoretically possible to apply the maxim in medical negligence cases was recognised by this court long ago in *Cassidy v Ministry of Health* [1951] 2 KB 343 (plaintiff's hand rendered

useless after a surgical operation on it: inference of negligence not rebutted) and *Roe v Ministry of Health* [1954] 2 QB 56 (plaintiff developed spastic paraplegia following lumbar puncture: inference of negligence rebutted).

33. I see no benefit in returning to the academic discussions of this topic in the 1950s and 1960s, since the operation of the maxim is now well settled by modern authority. Instead, I will consider four medical negligence cases decided by this court in the last 15 years in which the applicability of the maxim was discussed, and the most recent authoritative restatement of the governing principles in an opinion of Lord Griffiths, giving the opinion of five very experienced common law judges in the Judicial Committee of the Privy Council ten years ago.

34. In *Jacobs v Great Yarmouth and Waveney Health Authority* (CA 29 March 1984: (1995) 6 Med LR 192) the trial judge had rejected the plaintiff's case that she had been conscious during an operation, holding that she had mistakenly transposed in her mind the experiences of which she had become aware as she recovered from the anaesthetic after the operation. This court held that the judge was entitled on the evidence to make this positive finding, but Griffiths LJ went on to make some *obiter* observations (with which O'Connor LJ expressly agreed) about her counsel's contention that if this court had been willing to conclude that her recollection was pre-operational then it must follow that negligence had been established against the defendants because of the operation of the doctrine *res ipsa loquitur*.

35. He said at p 198 (LHC) that the doctrine *res ipsa loquitur*:

> "means no more than that, on the facts that the plaintiff is able to prove, although he may not be able to point to a particular negligent act or omission on the part of the defendants, the fair inference to draw is that there has been negligence of some sort on the part of the defendants; but that is an inference to be drawn upon the facts presented by the plaintiff. If there is further evidence presented by the defendant, those facts may be shown in an entirely different light and it may be that at the end of the day it is not possible to draw the inference of negligence."

36. On the facts of that case he said that even if he had been persuaded that this was a pre-operation memory and that the plaintiff had been aware until the moment of the first surgical incision, he would nevertheless not have been able to hold that it was attributable to the negligence of the defendant. The reason for this was that he was satisfied that the defendant had injected a sufficient dose of the anaesthetic drug into the plaintiff's vein, and not outside it, and that the literature shows that in this particular technique there is a risk that even if all proper precautions are taken some patients - admittedly rare cases - react in an abnormal way to the anaesthetic, and unhappily do remain aware, to a greater or lesser degree, although they are apparently fully anaesthetised. In other words, he was saying that although the plaintiff did set up a case to be answered on the operation of the maxim *res ipsa loquitur*, the defendant on this hypothesis would have answered it by showing that he exercised all proper care, and that it was possible (albeit rare) for this untoward event to occur even when an anaesthetist had exercised all due care.

37. Two members of that court were sitting in the Judicial Committee of the Privy Council four years later in *Ng Chun Pui v Lee Chuen Tat* [1988] RTR 298 when Lord Griffiths, giving the opinion of the Board, quoted at p 301 Erle CJ's dictum in *Scott v London and St Katherine Docks Company* (see para 29 above), and continued:

> "So in an appropriate case the plaintiff establishes a *prima facie* case by relying upon the fact of the accident. If the defendant adduces no evidence there is nothing to rebut the inference of negligence and the plaintiff will have proved his case. But if the defendant does adduce evidence that evidence must be evaluated to see if it is still reasonable to draw the inference of negligence from the mere fact of the accident. Loosely speaking this may be referred to as a burden on the defendant to show he was not negligent, but that only means that faced with a prima facie case of negligence the defendant will be found negligent unless he produces evidence that is capable of rebutting the *prima facie* case."

38. There are three decisions of this court in medical negligence cases in recent years which show how the court has applied the relevant principles in practice.

39. In *Bull v Devon Area Health Authority* (CA 2 February 1989: (1993) 4 Med LR 117) the evidence showed that there had been a period of 68 minutes between the birth of twins. The second twin was born with serious brain damage, and Slade LJ said at p 131 (LHC) that this was a case where on the evidence the delays in summoning aid in securing the attendance of the registrar or consultant were so substantial as to place upon the defendants the evidential burden of justifying them if it could. In the event they failed to explain the delay satisfactorily and did not discharge the onus. The breach of duty was therefore proved. Mustill LJ, for his part, was not sure that recourse to the maxim *res ipsa loquitur* really advanced the matter, since he did not see that the situation in that case called for recourse to an evidentiary presumption applicable in cases where the defendant does, and the plaintiff does not, have within his grasp the means of knowing how the accident took place. He said at p 142 (LHC):

> "Here all the facts that are ever going to be known are before the court. The judge held that they pointed to liability, and I agree. It is true that if the defendants had been able to call further evidence, they might have been able to show that what appeared to be an inexcusable delay was in fact to be excused. But they did not do so."

40. Dillon LJ did not refer to the maxim, but he pointed out at p 138 (LHC) that although the onus of proving negligence is on the plaintiff, he does not have to adduce positive evidence to disprove every theoretical explanation, however unlikely, that might be devised to explain what happened in a way which would absolve the defendants of fault.

41. In *Delaney v Southmead Health Authority* (CA 6 June 1992; (1995) 6 Med LR 355) the trial judge had dismissed the plaintiff's complaint that a lesion of the left brachial plexus (which gave her pins and needles in her hand and clawing of two fingers) which followed a surgical operation under general anaesthetic was caused by the negligence of the anaesthetist. Stuart-Smith LJ referred at p 359 (RHC) to an argument by her counsel to the effect that once the judge had accepted or found that the injury had occurred during the operation, and that it was an injury to the brachial plexus (and that there was no narrowing of the thoracic outlet which might have caused the problem), the maxim *res ipsa*

loquitur applied. He said:

> "For my part, I am doubtful whether it is of much assistance in a case of medical negligence, at any rate when all the evidence in the case has been adduced. But even if [counsel] is right in saying that at that stage the maxim applied, it is always open to a defendant to rebut a case of *res ipsa loquitur* either by giving an explanation of what happened which is inconsistent with negligence (but that is not the limb which the defendants were able to do here) or by showing that the defendants had exercised all reasonable care. In my judgment that is what happened here and that is what the judge accepted."

42. It was a feature of that case that once the alternative explanation had been rejected, nobody really knew what had happened to cause the plaintiff's problems, and counsel had relied on a number of learned articles in support of his contention that proper care could not have been taken on the occasion in question. This court, however, declined to reverse the finding of the judge that proper care had been taken. Stuart-Smith LJ said at p 358 (RHC):

> "For my part, I see the force of those submissions and, if the human body was a machine where it is possible to see the internal workings and which operates in accordance with the immutable laws of mechanics and with arithmetical precision, I think that the argument might well be unanswerable. But in spite of the wonders of modern medical science, even at post-mortem not everything is known about an individual human being. The judge said that it was not possible to explain how the injury had happened. He accepted the evidence of Dr Earl, who he described as a fair witness and who impressed him very much."

43. Dillon LJ at p 360 (RHC) agreed that the judge was not precluded from finding as he did. He said:

> "I cannot for my part accept that medical science is such a precise science that there cannot in any particular field be any room for the wholly unexpected result occurring in the human body from the carrying out of a well-recognised procedure."

44. Finally, in *Fallows v Randle* (CA 7 May 1996; (1997) 8 Med LR 160) Stuart-Smith LJ said at p 164 (RHC) that the maxim was not helpful in a case in which a first sterilisation had failed and the plaintiff had had to be re-sterilised six months later. The judge had heard evidence on both sides as to why a Fallope ring was found not to be in the position that it might have been expected to have been in when the second operation was carried out, and when faced with two alternative theories he was entitled to prefer the evidence of the plaintiff's expert, namely that it would not have happened without

it being placed in the wrong position, or being dislodged in the course of the operation and not detected, to the somewhat remote theories of the defendants and their expert.

45. In other words, the judge was deciding the case on the evidence, as opposed to applying the maxim in its purest form unbolstered by expert evidence.

46. Counsel for the defendants carried out a study of judgments at first instance in medical negligence cases reported in the Medical Law Reports where the application of the maxim has been considered. The effect of these judgments can be summarised as follows:

(1) Anaesthetic awareness cases

In *Ludlow v Swindon Health Authority* (1989) 1 Med LR 104 Hutchison J said that if the Plaintiff were able to establish that she was conscious and experiencing pain during a period when halothane gas should have been administered, then that set of facts would raise an inference of negligence even in the absence of expert evidence that anaesthetic awareness can only occur in the absence of reasonable anaesthetic care.

McKinnon J followed this approach in *Taylor v Worcester & District Health Authority* (1991) 2 Med LR 215.

(2) Untoward consequences of surgery/anaesthesia

In *Bentley v Bristol & Western Health Authority No 2)* (1992) 3 Med LR 1, where the plaintiff developed a sciatic nerve palsy following a total hip replacement, Waterhouse J decided in her favour on the evidence but said, *obiter*, at p 16, that if his analysis of the evidence was incorrect, then the maxim was applicable since the defendants had signally failed to rebut the inference of negligence by the evidence of the surgeon, or by other evidence, or by pointing to any tenable explanation of the plaintiff's profound and permanent injury which was consistent with lack of negligence on his part.

In *Moore v Woking District Health Authority* (1992) 3 Med LR 431, where the plaintiff underwent a mastoidectomy and thereafter developed ulnar nerve lesions, Owen J said at p 43 (LHC) that he took the view that a plaintiff who could say that he went into hospital with no impediment to the use of his upper limbs and no obvious risk to them, but came out in effect crippled, had temporarily at least created a situation where there was a *prima facie* case of negligence. Owen J seems to have been willing to apply the maxim without expert evidence, although the evidence of the plaintiff's expert came close to supporting the maxim. In the

event he dismissed the claim on the evidence.

In *Howard v Wessex Regional Health Authority* (1994) 5 Med LR 57, where the plaintiff became permanently tetraplegic following an operation, the plaintiff relied on the maxim at the outset, but at the end of a 3-week trial Morland J said that in view of the way the issues had crystallised, the application of the maxim was inappropriate.

In *Ritchie v Chichester |Health Authority* (1994) 5 Med LR 187, where the plaintiff was left with paralysis of the saddle area, incontinence and lack of vaginal sensation, Judge Thompson QC made positive findings of negligence on the evidence and commented at p 205 (RHC) that Stuart-Smith LJ's judgment in *Delaney* seemed to be a confirmation that the maxim does exist in relation to medical negligence cases but that it can be rebutted either by giving a positive explanation, such as some other cause of the damage, or by showing that the defendants had exercised all reasonable care.

(3) Cardiac arrest under general anaesthetic

In *Saunders v Leeds Western Health Authority* (6 December 1984: (1993) 4 Med LR 355), where the four-year old plaintiff suffered a cardiac arrest during surgery under general anaesthetic, Mann J received evidence from experts that the heart of a fit child does not arrest under anaesthesia if proper care is taken in the anaesthetic and surgical process. The judge found in the plaintiff's favour on the evidence, holding that the only explanation proffered on the defendants' behalf was mistaken, and even if it had been correct, it would have been rejected because it was a chain of occurrence of which only three recorded cases existed in the literature, each of which was in a different field of surgery where the patient was in a different position when the anaesthetic was administered.

In *Glass v Cambridge Health Authority* (1995) 6 Med LR 91, Rix J had received similar expert evidence in the case of an adult. He applied the maxim, holding that the burden of the prima facie inference of negligence cast upon the defendants by the doctrine remained unrebutted and undischarged.

47. Most recently of all, in *Widdowson v Newgate Meat Corporation (CAT* 19th November 1997; *The Times* 4th December 1997), a road traffic case in which the defendant had elected to call no evidence, I said of the state of the evidence at the end of the plaintiff's case:

> "It appears to me that the suggestions put forward in this passage of cross-examination do not amount to a plausible explanation, consistent with an absence of negligence on the Defendant's part, sufficient to rebut a *prima facie* inference of negligence by the Defendant, and a plausible explanation is what the law requires if a defendant is to escape liability in such circumstances (see *Moore v R Fox and Sons* [1956] 1 QB 596 per Evershed MR at p 607 and *Colvilles Ltd v Devine* [1969] 1 WLR 475, per Lord Guest at p 477. In *Clerk & Lindsell on Torts* (17th Edition) para 7-180, the editor observes that the defendant cannot hope to redress the balance merely by putting up theoretical possibilities: "his assertion must have some colour of probability about it.").

48. It is likely to be a very rare medical negligence case in which the defendants take the risk of calling no factual evidence, when such evidence is available to them, of the circumstances surrounding a procedure which led to an unexpected outcome for a patient. If such a case should arise, the judge should not be diverted away from the inference of negligence dictated by the plaintiff's evidence by mere theoretical possibilities of how that outcome might have occurred without negligence: the defendants' hypothesis must have the ring of plausibility about it. It is in this sense that Lord Dunedin's dictum in *Ballard v North British Railway Company* 1923 SC (HL) 43 at p 34 ("if the defenders can show a way in which the accident *may* have occurred without negligence, the cogency of the fact of the accident by itself disappears") should be understood.

49. It is now possible to draw some threads out of all this material, by way of explanation of the relevance of the maxim *res ipsa loquitur* to medical negligence cases:

(1) In its purest form the maxim applies where the plaintiff relies on the "*res*" (the thing itself) to raise the inference of negligence, which is supported by ordinary human experience, with no need for expert evidence.

(2) In principle, the maxim can be applied in that form in simple situations in the medical negligence field (surgeon cuts off right foot instead of left; swab left in operation site; patient wakes up in the course of surgical operation despite general anaesthetic).

(3) In practice, in contested medical negligence cases the evidence of the plaintiff, which establishes the "*res*", is likely to be buttressed by expert evidence to the effect that the matter complained does not ordinarily occur in the absence of negligence.

(4) The position may then be reached at the close of the plaintiff's case that the judge would be entitled to infer negligence on the defendant's part unless the defendant adduces evidence which discharges this inference.

(5) This evidence may be to the effect that there is a plausible explanation of what may have happened which does not connote any negligence on the defendant's part. The explanation must be a plausible one and not a theoretically or remotely possible one, but the defendant certainly does not have to prove that his explanation is more likely to be correct than any other. If the plaintiff has no other evidence of negligence to rely on, his claim will then fail.

(6) Alternatively, the defendant's evidence may satisfy the judge on the balance of

probabilities that he did exercise proper care. If the untoward outcome is extremely rare, or is impossible to explain in the light of the current state of medical knowledge, the judge will be bound to exercise great care in evaluating the evidence before making such a finding, but if he does so, the *prima facie* inference of negligence is rebutted and the plaintiff's claim will fail. The reason why the courts are willing to adopt this approach, particularly in very complex cases, is to be found in the judgments of Stuart-Smith and Dillon LJJ in *Delaney* (see para 39 above).

(7) It follows from all this that although in very simple situations the "*res*" may speak for itself at the end of the lay evidence adduced on behalf of the plaintiff, in practice the inference is then buttressed by expert evidence adduced on his behalf, and if the defendant were to call no evidence, the judge would be deciding the case on inferences he was entitled to draw from the whole of the evidence (including the expert evidence), and not on the application of the maxim in its purest form.

50. In the present case, in which much expert evidence had been given on both sides, Mantell J said:

> "The first question to be addressed and one which has occupied most of the hearing is whether it has been shown on a balance of probabilities that the anaesthetist, whoever it was, injected the spinal cord. I put it in that way because although I am far from stating that the maxim *res ipsa loquitur* can never have any application in a medical negligence case I doubt if it helps on the facts of the present. Certainly inferences are there to be drawn from the fact that the Plaintiff suffered unexpected neurological damage following the operation but in my judgment that falls short of establishing a prima facie case of negligence. ... It is not I think necessary for me to refer to authority."

51. The judge went on to find that the Plaintiff had not proved that his problems were caused by the Nurick lesion and that it was possible that they were derived from some pre-existing asymptomatic condition which the stress of the operation brought to life. The existence of that remote possibility would not have availed the Defendants if the judge was satisfied on the whole of the Plaintiff's evidence that he was entitled to infer that the untoward symptoms would not ordinarily have occurred in the absence of negligence by the anaesthetist, and he had received no evidence about what actually happened.

52. In this case, however, the judge made the positive finding that the anaesthetist had performed the spinal injection in the appropriate place with all proper care. In those circumstances any possible

inference of negligence falls away, and unless this finding were set aside the Plaintiff's case was bound to fail. Mr Burnett gallantly set out to persuade us that the judge had not evaluated the evidence in this part of the case carefully enough, and that if he had, he would not have made the finding he did. He said, for instance, that at the trial in July 1996 Dr Boaden accepted that he had no direct recollection of Mr Ratcliffe or his operation, and that this was surprising, given that he had been first told about Mr Ratcliffe's painful symptoms only 12 days after the operation. It was common ground that at an early stage of the litigation Dr Boaden had mistakenly thought that an anaesthetic registrar called Dr Byatte had been present throughout, and that he had forgotten that Dr Clements was present. He had also made no positive averment prior to the trial that it was he himself who had administered the spinal injection. This was said to cast doubt on his evidence under cross-examination that it was clear in his mind at the time that he had performed the injection, and that that memory had been with him ever since. Mr Burnett also drew attention to minor inconsistencies or oddities in Dr Boaden's earlier conduct or in his earlier explanations of what had taken place, and he made a number of other points in an attempt to satisfy us that the judge should have rejected Dr Boaden's evidence and concluded either that the Plaintiff had proved that the injection was administered at the wrong level, or that the Defendants had failed to prove that it was indeed administered at the L3/L4 level.

53. Mr Burnett had to make these challenges if his client was to have any real hope of succeeding in his appeal. In my judgment, however, they were all matters for the very experienced judge to evaluate. He had the inestimable advantage, denied to this court, of seeing Dr Boaden (who was in the witness-box for a very long time) and Dr Clements give evidence, and he was entitled to accept what they told him. It was not as if the Plaintiff's expert witnesses had presented a logically coherent explanation of what had probably happened, and Dr Nurick's thesis, which the judge was entitled to reject, had left a number of pieces of evidence wholly unexplained. It follows that once the judge was disposed to believe Dr Boaden, and to believe that Dr Clements's note was an accurate contemporary record of what took place, his finding that the injection was inserted in the correct space at the chosen

level was really inevitable, and his approach to the applicability of the doctrine *res ipsa loquitur* cannot in my judgment be faulted.

54. For these reasons I would dismiss this appeal.

SIR JOHN VINELOTT: I agree.

LORD JUSTICE HOBHOUSE:

I agree with Lord Justice Brooke that this appeal should be dismissed. His judgment already deals fully with the arguments advanced in support of the appeal. The main argument was that the Judge had misunderstood and failed properly to apply the so-called doctrine of *res ipsa loquitur*. Mr Burnett QC for the Appellant submitted to us that the courts have difficulty in assessing the applicability of the doctrine to cases involving allegations of medical negligence. I am surprised that this should be so in view of the guidance that has already been given in appellate courts including the Judicial Committee of the Privy Council in Ng Chun Pui v Lee [1988] RTR 298, Stuart-Smith LJ in Delaney v Southmead [1995] 6 Med LR 355, and the other appellate decisions referred to in the judgment of Brooke LJ. In the present case the Judge said at p.24:

> "Although I am far from stating that the maxim *res ipsa loquitur* can never have any application in a medical negligence case, I doubt if helps on the facts of the present. Certainly inferences are there to be drawn from the fact that the plaintiff suffered unexpected neurological damage following the operation but in my judgment falls short of establishing a *prima facie* case of negligence."

The Appellant submitted before us that the Judge should have concluded that an unrebutted inference of negligence remained and that his judgment did not contain the necessary findings to exculpate the Defendants from liability for the Plaintiff's injuries. I will come back to the facts of the present case and the findings which the Judge made but I will shortly deal with the relevance of the maxim to a trial for damages for medical negligence.

Res Ipsa Loquitur:

Res ipsa loquitur is no more than a convenient Latin phrase used to describe the proof of facts which are sufficient to support an inference that a defendant was negligent and therefore to establish a *prima facie* case against him. The classic description is and remains that given by Erle CJ in Scott v

London and St Katherine Docks (1865) 3 H&C 596 at 601:

> "There must be reasonable evidence of negligence, but where the thing is shown to be under the management of the defendant or his servants, and the accident is such as in the ordinary course of things does not happen if those who have the management use proper care, it affords reasonable evidence, in the absence of explanation by the defendant, that the accident arose from want of care."

The burden of proving the negligence of the defendant remains throughout upon the plaintiff. The burden is on the plaintiff at the start of the trial and absent an admission by the defendant is still upon the plaintiff at the conclusion of the trial. At the conclusion of the trial the judge has to decide whether upon all the evidence adduced at the trial he is satisfied upon the balance of probabilities that the defendant was negligent and that his negligence caused the plaintiff's injury. If he is so satisfied he gives judgment for the plaintiff: if not, he gives judgment for the defendant.

Whether or not the plaintiff has at some earlier stage relied upon a *prima facie* case does not alter this position. The plaintiff may or may not have needed to call evidence to establish a *prima facie* case. The admitted facts may suffice for that purpose. (*Ng v Lee*, sup) Conversely, the defendant may have chosen to call no evidence, in which case the court will have to decide whether the evidence adduced by the plaintiff suffices to satisfy the court, in the absence of any evidence to contradict it, that the defendant was negligent and that his negligence caused the plaintiff's injury. In all these situations the task of the judge at the end of the trial is the same. The only difference is that he may be left without direct evidence of what occurred and may have to act upon inferences to be drawn from incomplete evidence. Where the defendant is in a position to adduce evidence as to what occurred but has refrained from doing so, the court will be more willing to draw inferences adverse to the defendant than might otherwise be the case. Where the plaintiff is not in a position himself to give an account himself of what occurred and where the relevant situation was under the control of the defendant and the relevant facts are known to the defendant, the case may come fairly and squarely within the statement of Erle CJ quoted above. But it does so because the facts proved have given rise to an inference that the defendant was negligent. Where there is direct evidence as to what occurred there is no need to rely upon inferences. (Barkway v South Wales Transport [1950] 1 AER 392)

There is no rule that a defendant must be liable for any accident for which he cannot give a complete explanation. Even if there is an inference that, absent some explanation, there probably was negligence, the defendant can always by showing that he nevertheless took all reasonable care persuade the court that on the evidence adduced it should not be satisfied that the defendant was in fact negligent. (Woods v Duncan [1946] AC 401)

Medical negligence cases have the potential to give rise to considerations whether the plaintiff has made out a *prima facie* case and whether or not the defendant has provided an adequate answer to displace the inference to be drawn from the plaintiff's *prima facie* case. Further, it is commonplace that the plaintiff will not, himself or herself, have fully known what occurred, particularly if the relevant procedure was an operation carried out under anaesthetic. The procedures were under the control of the defendant and what the defendant did or did not do is exclusively within the direct knowledge of the defendant. But in practical terms few if any medical negligence cases are brought to trial without full discovery having been given, particulars having been obtained where necessary of the defendant's pleading, witness statements having been exchanged and experts' reports lodged. Therefore the trial opens not in the vacuum of available evidence and explanation as sometimes occurs in road traffic accident cases but with expert evidence on both sides and defined battle-lines drawn. The aspects of the facts and aetiology which can and cannot be explained with reasonable certainty will have been identified and the rival explanations marshalled. The viable allegations or inferences of negligence will have been identified and the parties and the trial judge will have a reasonable idea of the specific factual issues which are going to have to be investigated and determined at the trial.

To illustrate that from the present case. This case came to trial after all those preparatory procedures had been followed. The Plaintiff did not rely solely or even primarily upon the mere appearance of his neurological symptoms after the operation which the Defendants had carried out. He relied upon the expert evidence of among others Dr Nurick that the only reasonable explanation of the accident was that the needle injecting the marcain had been inserted into the Plaintiff's spinal cord at T11/12 or T12/L1 and not into the dural sack at L2/3 or L3/4. He had a positive case supported by

evidence which unless discredited or contradicted would suffice to enable him to succeed. He also had more general evidence that the neurological symptoms were related to and probably consequential upon the use of a spinal block. Similarly by the start of the trial the Plaintiff had abandoned any case that his injuries were caused by contamination of the marcain. This would have been a possible explanation of damage to the spinal cord but it is not one that he pursued at the trial. So, at the start of the trial the Plaintiff was entitled to say that he had a positive case on negligence but that in any event it was a fair inference that the spinal injection was administered in some way which was probably negligent. It was at the same time recognized that the Defendants had a positive case to present as well. They contested that the inference was appropriate. They said that they had taken all reasonable care and were ready to call the witnesses to demonstrate it. They disputed the Plaintiff's positive case and presented an alternative thesis which did not involve negligence on their part. All this was simply the state of the issues at the start of the trial.

It was suggested on behalf of the Appellants that there is difficulty in deciding in medical negligence cases when an inference of negligence would be justified and whether expert evidence would be necessary. The answer is that it depends upon the facts of the particular case. If the facts of the present case had been that the Plaintiff had gone into the operating theatre to have an arthrodesis to his right ankle and had come out of the theatre with his right ankle untouched and an arthrodesis to his left ankle, clearly no expert evidence would be required to support an inference of negligence on the part of the Defendants. "In the ordinary course of things" that does not happen if those conducting the operation have used proper care. But if on the other hand all that one knows is that a baby has been born with some brain defect, more needs to be proved and expert evidence is required to raise an inference of negligence on the part of those in charge of the management of the birth. The cases of Cassidy v Ministry of Health [1951] 2 KB 343 (the plaintiff went into hospital to be cured of two stiff fingers and he came out with four stiff fingers) and Rowe v Ministry of Health [1954] 2 AER 131 (routine operations followed by complete paralysis from the waist down) were apparently treated by at least some members of the Court of Appeal as coming into the first category. The vast majority of

medical negligence cases will come into the second category and require the plaintiff to adduce some expert evidence before an inference of negligence can be raised.

In practice, save in the most extreme cases of blatant negligence, the plaintiff will have to adduce at least some expert evidence to get his case upon its feet. This is the more so because probably before he commences his action and delivers his pleading he will have seen some record of what occurred and obtained some explanation from the defendants. But, even if he has to rely upon some fairly broadly based inference at the outset, by the time he gets to trial he will both be expected to and should be able to make some more specific allegations, supported by expert evidence, as to why he says the defendant was negligent. The essential role of the doctrine of *res ipsa loquitur* is to enable the plaintiff who is not in possession of all the material facts to be able to plead an allegation of negligence in an acceptable form and to force the defendant to respond to it at the peril of having a finding of negligence made against the defendant if the defendant does not make an adequate response. But once the defendant has responded then the question for the court is whether, in the light of that response, that is to say upon all the evidence that has been placed before it at the trial both by the plaintiff and by the defendant, the court is satisfied that the defendant has been negligent and that his negligence caused the plaintiff's injury.

The accepted categories of response that can be made to a case based upon *res ipsa loquitur*, that is to say, upon an inference of negligence, support this analysis. The defendant can displace the inference by showing by reference to a closer examination of the plaintiff's evidence or by reference to evidence adduced by the defendant that the inference that on the balance of probabilities there was negligence is not justified. The plaintiff's case then fails unless a more specific case has been made out. Alternatively the defendant can accept that there is a legitimate basis for the implication but say that in the particular case the defendant in fact exercised reasonable care notwithstanding the outcome and the inability fully to explain how the plaintiff's injury came about.

In my judgment there is no special difficulty involved in medical negligence cases. Each case

ultimately depends upon its own facts. In pleading his case the plaintiff will only be expected to particularize his allegations of negligence in a way that is appropriate to the state of his knowledge of what happened at the time of his pleading. What amounts to an acceptable pleaded *prima facie* case of negligence will depend upon the nature of the injuries complained of and the procedures from which they are said to have arisen. By the time the case comes to trial the plaintiff will be able fully to deploy his case by saying that notwithstanding the explanation given by the defendants the appropriate inference still to draw is that the defendants were negligent and by making particularized allegations of negligence against the defendants. At the end of the trial, after all the evidence relied upon by either side has been called and tested, the judge has simply to decide whether as a matter of inference or otherwise he concludes on the balance of probabilities that the defendant was negligent and that that negligence caused the plaintiff's injury. That is the long and short of it.

Medical negligence cases often involve factual questions of complexity and difficulty and require the evaluation of highly technical and conflicting expert evidence but the trial procedure is essentially the same as in other cases. Indeed, the judge will normally have the advantage of expert evidence on both sides and an appropriate level of factual evidence both documentary and oral. Medical negligence cases are unlikely to give rise to the stark problems encountered in road traffic accident cases where there may be a total dearth of evidence or where one or other side may choose, no doubt for tactical reasons, not to present evidence. In my judgment the leading cases already give sufficient guidance to litigators and judges about the proper approach to the drawing of inferences and if I were to say anything further it would be confined to suggesting that the expression *res ipsa loquitur* should be dropped from the litigator's vocabulary and replaced by the phrase *a prima facie case*. *Res ipsa loquitur* is not a principle of law: it does not relate to or raise any presumption. It is merely a guide to help to identify when a *prima facie* case is being made out. Where expert and factual evidence has been called on both sides at a trial its usefulness will normally have long since been exhausted.

The Judge's findings

The Judge specifically addressed the factual issues. The primary case of the Plaintiff was that the needle had been inserted at the wrong level and into the Plaintiff's spinal cord. There was no direct evidence to support this allegation. The inference that this was what had occurred was said to be supported by the subsequent impairment of the Plaintiff's central nervous system which was consistent with a damaged spinal cord below T7/8 extending to effectively the bottom of his spinal cord. It was said that there was evidence to be seen on the MRI scan done by Dr Lewis in 1995 which supported the conclusion that there was a single elongated lesion extending over the relevant part of the Plaintiff's spinal cord which was in all probability caused by an injection of local anaesthetic into the spinal cord at the level T12/L1. There was evidence to support this conclusion, particularly the evidence of Dr Nurick. The Defendants put forward a positive case in answer, relying in particular upon the evidence of Dr Illis, which was that the deficits in the Plaintiff's nervous system were not fully consistent with the existence of such a lesion and that only a "patchy" lesion would account for them. It was accepted that a patchy lesion would not have resulted from simply inserting the needle into the spinal cord. The Judge held that on the balance of probabilities the observed lesion was a patchy lesion and he did not accept the evidence that there was a single elongated lesion. He further found that the spinal injection was given at L3/L4 and not as alleged by the Plaintiff. There was ample evidence to support these conclusions of the Judge. They were consistent with the contemporaneous notes made at the time of the operation. They were supported by the factual evidence. They were not challenged as findings of fact on this appeal.

There was a further issue which received less prominence than the issue relating to the lesions. This related to whether there was any causal relationship between the existence of the patchy lesion and the deficit in the Plaintiff's nervous system and the administration of the spinal block albeit at the appropriate level of L3/4. Here the expert evidence was again to some extent, but less dramatically, conflicting. The Judge accepted the evidence of Dr McQuay an expert called on behalf of the Defendants. Dr McQuay, basing himself upon the published literature and his own experience said

that there was always a very small residual risk that in some unexplained way the administration of a spinal block would trigger a deficit in the central nervous system. The Judge's acceptance of this evidence was material not only to another part of the case which was not pursued on appeal but also to the question whether an inference of negligence was to be drawn from the mere fact that the administration of the spinal block is followed by some deficit in the central nervous system. The effect of the evidence was that such an inference would not be justified on those facts alone. It can and does occur in rare cases even though it is not possible to identify the characteristic of the patient's physiology which has caused the procedure to have that result. In the present case the experts were unable to identify any appropriate pre-existing condition and the highest that it could be put on the part of the Defendants was that some form of non-systemic vasculitis was possibly responsible. The Judge quite rightly did not found upon that evidence but simply concluded that the fact the Plaintiff's neurological deficit was probably attributable to the administration of the spinal block as part of the relevant operative procedure did not provide any basis for inferring that the spinal block was improperly administered. Indeed he made his finding of causal relationship specifically on the basis that the spinal block was properly administered. This conclusion therefore disarmed the Plaintiff's case insofar as it was based upon inferences sought to be drawn merely from the occurrence of the Plaintiff's injuries.

Finally, the Judge accepted the Defendants' factual evidence as to how the anaesthetic procedures had been carried out. The contemporaneous records disclosed no error and no criticism has been made of them. They record that the spinal injection was at L3/4 and that "clear CSF" (cerebral spinal fluid) was observed. Dr Bowden gave oral evidence and was cross examined. Other witnesses were called or tendered to support his factual evidence. The only witness called by the Plaintiff, Dr Clements, also supported the Defendants' case. There was no factual evidence to support any criticism of what the Defendants had done save only the evidence of Dr Nurick based upon the thesis of the elongated lesion. Once the Judge had declined to accept that evidence and had held that the needle was inserted at the correct level, there was nothing left (in the respects material to this

appeal) in the Plaintiff's case of negligence. The Defendants' evidence that they had taken all reasonable care stood uncontradicted. The Judge was right to reject the Plaintiff's case. Indeed, any other conclusion would have been contrary to the evidence which he had accepted.

The suggestion of the Appellant on this appeal was that somehow there remained some residual unanswered inference of negligence which the Judge should have used as a basis for finding in favour of the Plaintiff. As I have explained earlier, this submission is based upon a misunderstanding of the so-called doctrine of *res ipsa loquitur* and of the correct approach to the drawing of inferences. There was no residual basis. The matter had been fully explored in evidence on both sides and the task of the Judge was to make the appropriate findings of fact on the balance of probabilities on that evidence. This is what the Judge did and he cannot be faulted. The appeal must be dismissed.

ORDER: Appeal dismissed with costs; order nisi against the Legal Aid Board; legal aid taxation of the appellant's costs; leave to appeal to the House of Lords refused.