Case No: B3/2013/3655

Neutral Citation Number: [2015] EWCA Civ 1244
IN THE COURT OF APPEAL (CIVIL DIVISION)
ON APPEAL FROM THE MANCHESTER COUNTY COURT
MR RECORDER HUNTER QC
9OL01101

Royal Courts of Justice
Strand, London, WC2A 2LL

Date: 03/12/2015

Before :

LORD JUSTICE JACKSON
LORD JUSTICE McCOMBE
and
SIR COLIN RIMER

- -

Between :

TRACEY O'CONNOR	**Claimant/ Respondent**
- and -	
THE PENNINE ACUTE HOSPITALS NHS TRUST	**Defendant/ Appellant**

- -
- -

Mr Nigel Poole QC (instructed by **MPH Solicitors**) for the **Claimant/Respondent**
Mr Charles Feeny (instructed by **Weightmans LLP**) for the **Defendant/Appellant**

Hearing date: Tuesday 10th November 2015

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Judgment

Lord Justice Jackson:

1. This judgment is in seven parts, namely:

Part 1. Introduction

2. This is an appeal by an NHS Trust against a finding that its surgeon negligently caused injury to the claimant's left femoral nerve during the course of an abdominal operation. The central issues in this appeal are whether there was an evidential basis for that decision and whether the trial judge drew impermissible inferences.

3. The problems arising in this case are not unique. A patient who sustains injury while under general anaesthetic cannot give evidence about what actually happened and often cannot call any factual witnesses to support his/her case. The court is therefore reliant upon the defendant's factual evidence, which it needs to examine both critically and fairly. The court also of course has the benefit of expert evidence, but none of the experts will have first hand knowledge of what happened. There may occasionally be a video recording of the operation, but I can only recall dealing with one such case (when I was in practice at the Bar).

4. The claimant in the present case and respondent in the Court of Appeal is Mrs Tracey O'Connor. The defendant at trial and appellant in this court is The Pennine Acute Hospitals NHS Trust. The defendant is responsible for the Royal Oldham Hospital in Oldham. The trial judge was Mr Recorder Hunter QC, to whom I shall refer as "the judge".

5. The following technical terms require explanation:

• Vesicovaginal Fistula ("VVF") is an abnormal epithelial lined tract that connects the bladder to the vagina. A patient who develops a VVF will suffer from incontinence of urine into the vagina.

• A Turner-Warwick abdominal ring retractor is a device used to retract the edges of the incision when operating on the abdomen or pelvis during urological surgery. It is a metal ring with serrated teeth which is placed around the incision on the abdomen. Blades are inserted to hold the edges of the incision open and hooked over the outside of the ring to pull open the wound into the abdominal cavity. Both deep and shallow blades are available to the surgeon.

• The femoral nerve runs from the lower spine through the psoas muscle to the thigh. The femoral nerve controls some of the leg muscles and facilitates some of the sensation in the leg.

6. After these introductory remarks, I must now turn to the facts.

Part 2. The facts

7. The claimant was born on the 3rd May 1965. On the 18th July 2005 she underwent a hysterectomy at the Royal Oldham Hospital. An unfortunate, but non-negligent consequence of that procedure was that the claimant developed a VVF. Accordingly she required a further operation in order to repair the VVF.

8. On 26th September 2005 Mr Neeraz Sharma, a consultant urologist at the Royal Oldham Hospital, operated on the claimant to repair the VVF. Dr Jonathan Kenworthy, a consultant anaesthetist at the Royal Oldham Hospital, anaesthetised the claimant during the operation.

9. Mr Sharma began by cutting open the abdomen, using the same semi-circular incision that had been cut for the purpose of the hysterectomy. He then placed a Turner-Warwick abdominal ring retractor on the surface of the abdomen in order to hold open the abdominal wall. Mr Sharma used the retractor in a somewhat unorthodox way, but nothing now turns on that aspect.

10. In order to repair the VVF Mr Sharma first needed to move the sigmoid colon out of the way. This involved dissecting the colon from the pelvic wall. It also involved dissecting the colon from the vaginal side of the fistula.

11. The crucial section of Mr Sharma's operation note (which the judge held to be an accurate record) reads as follows:

> "The sigmoid colon was badly stuck to the vaginal side of the fistula.
>
> Dissected very slowly free small seromuscular tear oversewn in 2 layers.
>
> Then the fistula was excised and the vagina dissected off the backwall of the bladder."

12. Mr Sharma duly completed the operation and the claimant was taken back to her ward. When the claimant awoke from the anaesthetic she found that her left leg was numb and there was a loss of motor function. When later some sensation returned, the leg was painful.

13. Subsequent tests revealed that the claimant had sustained injury to the left femoral nerve. In a report dated 21st October 2005 Dr Elsayed, a consultant neurologist employed by the defendant, set out the results of his testing and reached the following conclusions:

> "**Opinion**
>
> These findings are consistent with markedly severe left femoral neuropathy which is axon loss in nature; there are no changes of reinnervation in the affected muscles examined at this stage."

14. On 24th January 2006 the claimant attended Mr Sharma's out-patient clinic at Royal Oldham Hospital. Mr Sharma checked that the VVF had healed and that the bladder function was normal. He then discussed the problems with the claimant's left leg. Following that consultation he sent a letter to the claimant's general practitioner, which included the following passage:

> "I was pleased to note from her that she is now not incontinent, her bladder function is entirely normal and she has no leakages what so ever, clearly suggesting that the vesicovaginal fistula has healed as I had expected it to. However the only problem she now has is this pain in her left anterior leg going down to her ankle and a difficulty in hip flexion. Nerve conduction studies show that it is a femoral nerve neuropathy on the left side and what puzzled me was why it had come to pass. We know that with lithotomy position you can get femoral nerve entrapment injuries, but her lithotomy was only for a cystoscopy and bilateral retrograde which wouldn't have taken any more than 15 minutes. The only other thing was that her sigmoid colon was badly stuck to the vaginal side of the fistula and required a very slow painstaking dissection and I wonder whether that was the area entrapped which could have been the site of a presumed injury.
>
> ….
>
> I have obviously apologised to Mrs O'Connor and her family that this has come to pass and I couldn't think of any logical explanation which would explain it accept for these adhesions of the sigmoid to the vagina, which we had to peel away to get to the fistula."

15. Over time the damage to the femoral nerve resolved. Unfortunately the claimant continued to have discomfort and difficulty in walking. This was due to functional overlay and the triggering of a pre-existing psychiatric condition.

16. The claimant maintained that Mr Sharma had caused the nerve damage by his negligent conduct of the operation and that the defendant was liable in damages. The defendant rejected that claim. Accordingly the claimant commenced the present proceedings.

Part 3. The present proceedings

17. By a claim form issued in the Oldham County Court on 31st March 2009 the claimant claimed damages for injury and loss resulting from the defendant's negligence. In her claim form the claimant alleged that negligent conduct of the operation on 26th September 2005 had caused serious injury to her femoral nerve. The defendant served a defence denying negligence, damage and causation.

18. Both parties proceeded to prepare their witness statements. On the defendant's side Mr Sharma prepared a statement setting out his recollection of events. Dr Kenworthy prepared a statement identifying the general and local anaesthetics which he had used. He asserted that these could not have caused any femoral nerve damage.

19. Both parties instructed expert witnesses to deal with liability and quantum. In relation to liability the experts were in the following disciplines: neurology, urological surgery and pain management. After exchange of reports the three pairs of experts met to prepare joint statements for the assistance of the court.

20. The neurology experts were Professor Chadwick for the claimant and Dr Sambrook for the defendant. They prepared a joint statement dated 22nd/23rd September 2011. This recorded that the claimant had suffered damage to the left femoral nerve, which had subsequently improved. In relation to causation of the nerve injury Professor Chadwick and Dr Sambrook wrote:

> "We agree that some form of surgical trauma would be most likely."

21. The urological experts were Professor Chapple for the claimant and Mr Desmond for the defendant. They prepared a joint statement dated 31st October/4th November 2011. In paragraph 2 they stated:

> "We agree that there appears to be a causal link between the surgery and the development of the neural dysfunction. It is reported that such dysfunction can occur following the pressure from deep lateral blades of a self-retaining retractor on the femoral nerve where it lies within the psoas muscle. Another possibility, although less likely, is that there was direct damage to components of the femoral nerve during dissection."

22. They attached to their joint statement a paper by Dr William Irvin and others, which explained those two possible ways in which the femoral nerve may be injured. The experts also agreed that if injury to the femoral nerve occurred during dissection, that would constitute sub-standard care.

23. The pain management experts were Dr Simpson (a consultant in anaesthesia and pain medicine) for the claimant and Dr Bernstein (a consultant rheumatologist) for the defendant. They prepared a joint statement dated 16th January 2012. In that joint statement Dr Simpson expressed the view that the regional anaesthetic block administered during the operation had caused the damage to the claimant's femoral nerve.

24. The defendant took the view that the point raised by Dr Simpson may open up a new avenue of defence. Accordingly the defendant sought an expert report from Professor Aitkenhead (an expert anaesthetist) in order to demonstrate that the anaesthetics administered to the claimant could have caused her injury, but without any negligence on the part of Dr Kenworthy.

25. At a case management hearing at Manchester County Court on 19th April 2013 the defendant applied for permission to adduce the expert evidence of Professor Aitkenhead. District Judge Hovington refused that application, but he gave permission for the defendant to put written questions to Dr Simpson. District Judge Hovington refused permission to appeal against his order and directed that any renewed application for permission to appeal should be made to the Designated Civil Judge.

26. Pursuant to the district judge's order the defendant duly sent written questions to Dr Simpson. The purpose of these questions was to explore whether and how the regional anaesthetic block could have caused femoral nerve injury.

27. Before responding Dr Simpson obtained and considered Dr Kenworthy's witness statement. This caused her to change her views. On 24th April 2013 Dr Simpson sent her response in a letter which included the following:

> "I am of the opinion that it is possible that the localised and limited femoral nerve damage that was neurophysiologically apparent a month after the surgery could have been a consequence of the regional block. Although unusual, femoral nerve irritation in his situation is not impossible. However I note that the anaesthetist involved was of the opinion that this was highly unlikely."

28. The defendant considered Dr Simpson's response, but it did not take any further action on this aspect of the case. The defendant did not apply to the Designated Civil Judge for permission to appeal against District Judge Hovington's order. Nor did the defendant renew its application to call Professor Aitkenhead in the light of Dr Simpson's letter.

29. In August 2013 the defendant served a second witness statement of Mr Sharma and a second report by Mr Desmond. The defendant obtained permission to rely on Mr Sharma's second witness statement at the pre-trial review on 12th August 2013. The defendant did not on that occasion make any further application to call Professor Aitkenhead as an additional expert witness.

30. In his second witness statement Mr Sharma explained that he used a Turner-Warrick abdominal ring retractor without deep retraction. Accordingly that could not have caused damage to the femoral nerve by the means suggested in the urologists' joint statement.

31. Mr Desmond in his second report said that, in the light of Mr Sharma's second witness statement, pressure from the retractor could not have caused femoral nerve damage in the manner suggested in the joint statement which he had signed on 4th November 2011. Mr Desmond then went on to state that administration of a local anaesthetic block must have caused the injury.

32. The claimant's solicitors asked Professor Chapple to consider Mr Sharma's second statement and the other recent medical evidence. Professor Chapple did so and prepared a report dated 6th September 2013. He accepted that, since Mr Sharma did not use deep retraction, the retractor would not have caused injury to the claimant's femoral nerve. Turning to the alternative mechanism which he had previously identified, he said:

> "It is possible that the neural injury occurred during dissection related to sigmoid colon. This would be considered to be very unusual as the damaged nerve is fairly deeply buried but could potentially be injured if the dissection was difficult and the surgeon dissection very deeply into the tissues."

He also referred to difficulty of visualisation if the Turner-Warwick retractor was not used properly.

33. The claimant's solicitors sent Mr Desmond's new report to Dr Simpson and asked for her comments. Dr Simpson replied by letter dated 22nd September 2013. She wrote:

> "When I discussed the case with Dr Bernstein I was aware that the anaesthetist had performed nerve blocks in this case and I did consider whether there was a possibility that this resulted in temporary femoral nerve irritation.
>
> Having now had the opportunity to see Dr Kenworthy's account of his technique it is clear that such an eventuality was highly improbable. It is most unlikely that the femoral nerve was injured during the provision of the bilateral rectus sheath and ileo-inguinal blocks. Dr Kenworthy describes his technique clearly and the injection is well away from the femoral nerve as it emerges underneath the inguinal ligament. In addition Dr Kenworthy used a blunted needle for the block with reduces the

> risk of nerve trauma. It is therefore the case that the possibility of femoral nerve discussed with Dr Bernstein is now very unlikely given the evidence of the anaesthetist. Tracey O'Connor is a slim lady of short stature; her low BMI makes nerve blocks more straight forward as the surface anatomy is clear. This is another factor that would make it unlikely that Dr Kenworthy's injections have any bearing on the subsequent neurological dysfunction."

34. The claimant's solicitors furnished a copy of that letter to the defendant's solicitors. They also included that letter in the bundle of expert evidence.

35. Finally the action came on for trial at the Manchester County Court before Mr Recorder Hunter QC. The trial started on Monday 30th September 2013 and finished on Friday 4th October.

36. The proceedings began with an application by the defendant to call Professor Aitkenhead as an additional expert witness, primarily on the ground that Dr Simpson had changed her evidence about the causation of the claimant's injury. The judge rejected that application, essentially for the following reasons:

    i) Dr Simpson's letter of 22nd September 2013 was simply a response to the new report from Mr Desmond.

    ii) The difference between Dr Simpson's letter dated 24th April 2013 and her letter dated 22nd September 2013 was not so great as to warrant a new expert being brought into the case.

    iii) The defendant's application, which was first foreshadowed in counsel's skeleton argument for trial, came far too late in the day.

    iv) If the application were allowed, the trial would be adjourned and costs would be increased.

    v) The 2013 civil justice reforms militated against allowing an adjournment in those circumstances.

37. The trial then proceeded. The factual witnesses gave oral evidence on day one. They were the claimant, her husband and Mr Sharma. The last factual witness was Dr Kenworthy. There was no challenge to his evidence. So Dr Kenworthy's statement went in as written evidence.

38. On the subsequent days the expert witnesses gave their evidence in relation to all liability and quantum issues. The judge reserved his judgment.

39. On 26th November 2013 the judge gave judgment in favour of the claimant. He assessed damages in the total sum of £459,758.09.

40. Since there is no appeal on quantum, I say no more about that aspect of the case. In relation to liability, I would summarise the judge's findings and conclusions as follows:

i) The judge preferred the evidence of Professor Chapple to that of Mr Desmond on points where those two experts differed.

ii) Mr Sharma did not use deep retraction. Therefore downward pressure from the Turner-Warwick retractor (the first of the two mechanisms set out in the urologists' joint statement) did not cause the injury.

iii) The anaesthesia administered by Dr Kenworthy did not cause the injury.

iv) Mr Sharma caused injury to the femoral nerve during the process of dissection (the second mechanism suggested in the urologists' joint statement). The judge's crucial finding is set out in paragraph 75 as follows:

> "Whilst there has been no direct evidence as to the mechanism of such damage, I am satisfied to the requisite standard that some form of blunt trauma injury was caused to the femoral nerve in the location of the psoas muscle."

v) That constituted negligence on the part of Mr Sharma.

41. The defendant was aggrieved by the judge's decision on liability. Accordingly it appealed to the Court of Appeal.

Part 4. The appeal to the Court of Appeal

42. By a notice of appeal filed on 17th December 2013 the defendant appealed against the judge's decision on liability on two grounds. The first ground was that the judge erred in refusing the defendant's application to adduce additional expert evidence. The second ground was that the judge erred in finding that Mr Sharma injured the claimant's femoral nerve during dissection.

43. The appeal came before this court on 10th November 2015. Mr Nigel Poole QC appeared for the claimant, as he had done in the court below. Mr Charles Feeny appeared for the defendant, as he had done in the court below.

44. The appeal did not get off to a good start. No photographs, diagrams or plans were available to show the location of the various abdominal organs and nerves or how they fitted together. Mr Feeny valiantly did his best, by waving a finger around in the air to show us what was what. That was hardly ideal. We then adjourned for ten minutes while counsel hastily prepared a rough sketch plan for the assistance of the court.

45. In any case involving medical, engineering or other scientific issues the bundle should include any necessary drawings or photographs, so that the court can readily understand the technical background and context. Such material is normally provided to the court as a matter of routine. This case is an unfortunate exception.

46. Following the conclusion of the hearing, it occurred to me that the reasoning the Court of Appeal in *Thomas v Curley* [2013] EWCA Civ 117; [2013] Med LR 141 may be relevant to the issues in the present appeal. I therefore invited counsel on both sides to send in their brief written submissions on that authority, which they duly did and for which I am grateful.

47. I must now turn to the two grounds of appeal. The first ground raises the question whether the judge erred in refusing to allow additional expert evidence.

Part 5. Did the judge err in refusing to allow additional expert evidence?

48. This ground of appeal is so obviously misconceived that I hope the parties will forgive me for dealing with it in short order.

49. The views of the expert witnesses developed as more factual evidence became available and as discussions between the experts proceeded. For example, the views of Mr Desmond changed both dramatically and favourably to the defence case when he prepared his second expert report in August 2013.

50. The main change of opinion on the part of Dr Simpson occurred in April 2013, when she responded to the defendant's questions pursuant to District Judge Hovington's order. Dr Simpson's further shift of opinion between April and September 2013 was more modest. Indeed the only reason for her letter of 22nd September 2013 was the need for an expert response to Mr Desmond's report dated 10th August 2013. The proposition that Dr Simpson's change of emphasis in her September letter somehow entitled the defendant to bring in a new expert witness is untenable.

51. There are also wider considerations in play. The application for permission to call an additional expert was made at the latest possible stage, namely on the first day of trial. If the judge had granted the application, that would have necessitated an adjournment of the trial with consequential delay and massive extra costs.

52. Following the civil justice reforms of 2013, that is simply not how we do things now. See the majority judgment of the Court of Appeal in *Denton v T.H.White Ltd* [2014] EWCA Civ 906; [2014] 1 WLR 3926. Also – dare I say it – paragraph 89 of the third judgment in *Denton* is directly pertinent.

53. If the judge had granted the defendant's application, I imagine that the claimant would have launched an urgent appeal. Even though the issue was one of case management (where judges have a broad discretion) I do not see how a decision to abort a clinical negligence trial on day 1 for the benefit of a dilatory defendant could possibly be justified.

54. I would therefore dismiss the defendant's first ground of appeal. I must now turn to the second ground of appeal, which is whether the judge erred in finding that the surgeon injured the claimant's femoral nerve during dissection.

Part 6. Did the judge err in holding that the surgeon injured the claimant's femoral nerve during dissection?

55. Mr Feeny advances the following arguments:

i) The judge wrongly treated Professor Chapple as supporting the proposition that Mr Sharma caused nerve damage during dissection. In fact Professor Chapple only regarded this as a theoretical possibility.

ii) The judge erroneously considered that Mr Sharma had inadequate visualisation.

iii) The judge misinterpreted Mr Sharma's letter of 24th January 2006.

iv) The judge erred in saying that there was no other possible cause of the injury. There was at least one other possible cause, namely the anaesthetics.

Mr Poole resisted each of these four arguments.

56. There has been some debate as to whether the claimant's case rests on *res ipsa loquitur* or some analogous principle. There is also an issue as to whether the judge in this case has committed the same heresy as the trial judge in *Rhesa Shipping Co S.A. v Edmunds* [1985] 1 WLR 948.

57. It may therefore be helpful if I begin by reviewing the legal principles.

58. The classic exposition of the doctrine of *res ipsa loquitur* is to be found in the judgment of Earle C.J. in *Scott v London & St Katherine's 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 defendants, that the accident arose from want of care."

59. A vast body of case-law has developed on this topic including, most famously, the decision of the Court of Appeal in *Cassidy v Ministry of Health* [1951] 2 KB 343. In that case the plaintiff was treated at Walton Hospital, Liverpool for Dupuytren's contraction of the third and fourth fingers of the left hand. Dr F performed the operation. After the operation (as was normal) the plaintiff's left hand and lower arm were kept rigid in a splint. When released from the splint the plaintiff's left hand was useless. The third and fourth fingers were bent and stiff. The two good fingers were also affected. The Court of Appeal, reversing the trial judge, held that the maxim *res ipsa loquitur* applied. "On the basis that the hospital was responsible for all those in whose charge the plaintiff was, the surgeon, the doctor and nurses, the result seems to me to raise a case of *res ipsa loquitur*," per Somervell LJ. The defendants did not, on the evidence, succeed in rebutting the inference that there had been some negligence by their staff and accordingly they were held liable to the plaintiff.

60. More recent authority has tended to the view that *res ipsa loquitur* is not a principle of law at all. There is no reversal of the burden of proof. The so-called *res ipsa loquitur* cases are merely cases in which, on the totality of the evidence, the court was able to

make a finding of negligence. It has always been the position that courts can make findings of fact by means of inference when there is no direct evidence of the events in issue.

61. In *Ratcliffe v Plymouth & Torbay Health Authority* [1998] PIQR P170 Brooke LJ, with whom Hobhouse LJ and Sir John Vinelott agreed, reviewed numerous cases on *res ipsa loquitur* in the medical context. At P184 he distilled the following principles, with which I respectfully agree:

> "(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 of 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 L.JJ. in *Delaney* [see P181 *supra*].

> (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."

62. In *Thomas v Curley* [2013] EWCA Civ 117; [2013] Med LR 141 the appellant operated on the respondent to remove a gallstone. The respondent subsequently suffered severe pain and complications due to injury to her bile duct. The judge declined to apply *res ipsa loquitur*, but held that negligence had been proved. The Court of Appeal upheld that decision. Lloyd-Jones LJ (with whom Sullivan LJ and Warren J agreed) stated that the respondent had suffered injury during an uncomplicated operation. The expert witnesses suggested various possible mechanisms by which the injury may have been caused: see [24]. None of those mechanisms was consistent with the exercise of proper skill and care: see [33]. In the absence of any satisfactory explanation from the defendant's expert of from any other quarter, the judge was entitled to conclude from all the evidence that negligence had been proved. This was not a case of *res ipsa loquitur* and there was no reversal of the burden of proof.

63. Where a trial judge hears direct evidence about events in issue and makes findings of fact, accepting the evidence of some witnesses and rejecting that of others, appellate courts will seldom interfere. There are good reasons for such deference. Where, however, the trial judge makes findings of fact based on inference, an appellate court may in an appropriate case examine the judge's process of inference. This is what happened in *Rhesa Shipping*. In that case the plaintiffs' motor vessel sank in calm weather in the Mediterranean Sea off the coast of Algeria, when laden with a cargo of bagged sugar. The plaintiffs, as assured, sought to recover under two substantially identical time policies of marine insurance, against the defendants, hull underwriters, in respect of the loss of the vessel. The plaintiffs originally sought to explain the loss of the vessel in various ways prior to the trial, but those explanations were all subsequently abandoned. At the trial the plaintiffs finally advanced as an explanation for the loss a collision with a submerged submarine, which was never detected, never seen and which never surfaced. The trial judge made no finding concerning the seaworthiness of the vessel. Although he regarded the plaintiffs' case as being inherently improbable, he held nevertheless that the plaintiffs' submarine hypothesis had to be accepted, as, on the balance of probabilities, the explanation for the loss of the vessel. The Court of Appeal upheld that decision. The House of Lords allowed the defendants' appeal. The House of Lords held that the only inference which could properly be drawn from the primary facts found by the trial judge was that the true version of the ship's loss was in doubt. The House of Lords held that, accordingly, there was no justification for drawing the inference that there had been a loss by perils of the seas, whether in the form of collision with a submarine or any other form, and that therefore the plaintiffs had failed to establish their claim.

64. It is not an uncommon feature of litigation that several possible causes are suggested for the mishap which the court is investigating. If the court is able, for good reason, to dismiss causes A, B and C, it may be able to reach the conclusion that D was the effective cause. But the mere elimination of A, B and C is not of itself sufficient. The court must also stand back and, looking at all the evidence, consider whether on the balance of probabilities D is proved to be the cause. See *Nulty v Milton Keynes Borough Council* [2013] EWCA Civ 15 at [34] per Toulson LJ and *Graves v Brouwer* [2015] EWCA Civ 595 at [24] to [30].

65. With these principles in mind, I must return to the present case. The crucial question is whether the judge fell into error in the inferences which he drew from the evidence before him.

66. Mr Feeny's first line of attack is that the judge misinterpreted or read too much into Professor Chapple's evidence. The starting point for considering this argument must be Professor Chapple's two reports and the joint statement which he and Mr Desmond signed. In those documents Professor Chapple identified two possible causes of the neural injury, namely (i) downward pressure from the retractor and (ii) causing neural damage during dissection around the colon. He initially said that the first of those two was the more likely. He subsequently eliminated the first cause after learning that Mr Sharma did not use deep retraction.

67. There was some debate in cross examination as to how close to the femoral nerve Mr Sharma would have been when he was dissecting the colon. Counsel have taken us through the relevant parts of the transcript. The position appears to be that at one stage Mr Sharma was working within one to two centimetres of the nerve. At another stage in the dissection he would have been four to five centimetres away.

68. The gist of Professor Chapple's evidence was that an experienced surgeon carrying out a VVF repair would normally be unlikely to damage the femoral nerve during dissection of the colon, but it was a possibility. In this case the dissection was particularly difficult because the sigmoid colon was adhering both to the pelvic wall and to the vagina.

69. At day 2, page 22 of the transcript, Professor Chapple gave the following elaboration:

> "Q. Yes, so what you are postulating now is that not necessarily that he made contact with the femoral nerve but that he caused some bruising or ischemic damage to the muscle adjacent to the femoral nerve, is that what you are suggesting?
>
> A. No, I'm suggesting there could have been damage to the femoral nerve, bruising it, haematoma, ischemia or whatever else during the dissection process, because in the diagram I showed his honour earlier and yourself, the femoral nerve lies lateral, just slightly lateral to the psoas muscle and first thing you come across is where the psoas muscle is as you reflect the colon."

In re-examination Professor Chapple explained that the surgeon was more likely to cause direct damage to the femoral nerve than indirect damage: see day 2, page 33.

70. Both Professor Chapple and Mr Desmond produced medical literature to support their joint statement that surgeons dissecting the sigmoid colon may cause damage to the femoral nerve. This is a paper by Dr William Irvin and others entitled "Minimizing the Risk of Neurologic Injury in Gynecologic Surgery". The paper is dated February 2004. This states at page 375-6:

> "Although the true incidence of iatrogenic femoral nerve injury is unknown because of underreporting, prospective trials have reported incidences of more than 11%. Iatrogenic femoral nerve injury can develop as the result of stretch injury secondary to inappropriate patient positioning preoperatively, due to direct injury associated with surgical dissection, or as the result of physical trauma resulting from prolonged compression by retractor blades."

71. The judge summarised Professor Chapple's evidence on this aspect at paragraphs 72-74 of the judgment. That is a fair summary and it does not over-state the effect of the professor's evidence, which the judge accepted.

72. Mr Feeny submits that there are inconsistencies between the evidence of Professor Chapple and Mr Sharma, who attended court on different days and did not hear each other's evidence. That is factually correct. They took different views as to the likelihood of causing direct damage to the femoral never during dissection. On the other hand the judge took those differences into account at paragraph 75 of his judgment. He preferred Professor Chapple's evidence. We, as an appellate court, cannot go behind that.

73. The fact that Mr Sharma and Professor Chapple gave evidence on different days and in one another's absence gets the appellant nowhere. In accordance with standard practice both parties called their factual evidence before any expert witness was called. Both counsel had the opportunity to put any relevant parts of Mr Sharma's evidence to Professor Chapple for his consideration and comment. Indeed Mr Feeny did just that during cross-examination.

74. Mr Feeny's second argument is that the judge erred in what he said about visualisation. In the last part of paragraph 75 the judge referred to "possible difficulties with visualisation" as a relevant factor. Mr Feeny submits that that comment goes beyond the evidence.

75. During cross examination Mr Feeny showed to Professor Chapple the photographs of how Mr Sharma said that he used the Turner-Warwick retractor. Professor Chapple said that such use, without deep retraction, was not how the system was designed to be used. In answer to a further question Professor Chapple said that he would not be critical of the visualisation achieved by Mr Sharma's method.

76. In the light of that cross examination the judge did go slightly too far in the last sentence of paragraph 75 of the judgment. The judge was quite entitled to refer to Mr Sharma's unorthodox use of the retractor, but his reference to "possible difficulties with visualisation" did go beyond the evidence. Nevertheless since the judge only

referred to "possible difficulties" I do not regard this as a significant factor in his overall decision.

77. Mr Feeny's third argument is that the judge erred in attaching significance to Mr Sharma's letter dated 24th January 2006. I have set out the relevant section of that letter in Part 2 above. What the judge said about the letter appears in paragraph 75 of the judgment as follows:

> "I am reinforced in my findings by the fact that some three months after the surgery, this was the very mechanism that Mr Sharma had identified as the only logical explanation for the damage. I am satisfied that the letter written by Mr Sharma reflected the considered views of a conscientious clinician doing his best to explain a surprising outcome from surgery that had otherwise been a success."

78. In my view, contrary to Mr Feeny's submissions, the opinion which Mr Sharma ventured in his letter dated 24th January does come very close to the mechanism of injury which the judge has found. I quite agree that the word "entrapped" is ambiguous. Nevertheless the gist of Mr Sharma's letter is that he may have caused some form of trauma to the femoral nerve during the difficult task of dissecting the sigmoid colon. Although Mr Sharma commented on the letter at some length in his oral evidence, nothing which he said in the witness box could detract from what he wrote in that letter just four months after the operation.

79. The judge did not base his decision upon that letter. He merely referred to it as providing some support for the conclusions which he had reached on the basis of other evidence. I therefore reject Mr Feeny's third line of argument.

80. Mr Feeny's fourth argument is that the judge was not entitled to reject the 'anaesthetic explanation' for how the injury was caused.

81. This argument is, in my view, hopeless. The judge received a range of different views on the 'anaesthetic explanation'. He assessed them, as was his judicial duty, and reached a conclusion for which there was abundant support. In particular:

i) Dr Kenworthy, the anaesthetist who actually administered the anaesthetics to the claimant, gave details of what he had done and explained why it was "very unlikely" that any of the anaesthetics had injured the femoral nerve.

ii) Dr Kenworthy was the defendant's witness. His evidence went before the court in writing because neither party challenged what he said. The defendant can hardly complain that the judge chose to accept the evidence of the defendant's own witness.

iii) The two expert neurologists in their joint statement agreed that "some form of surgical trauma would be most likely". They did not put forward the anaesthetic explanation as a possibility.

iv) Although Dr Simpson originally favoured the anaesthetic explanation, she changed her mind after reading Dr Kenworthy's statement.

82. Mr Feeny candidly concedes in paragraph 4 (f) of his skeleton argument that the anaesthetic explanation "could be said to be unlikely". Nevertheless he submits that the anaesthetic explanation is no more unlikely than the surgical trauma explanation postulated by the claimant. Therefore the judge was in a similar position to the first instance judge in *Rhesa Shipping*. He was faced with two unlikely explanations for the injury. In those circumstances he was not entitled to accept either explanation. He should have held that the claimant had failed to prove her case.

83. I do not accept this argument, essentially for two reasons. First the judge was entitled to dismiss entirely the anaesthetic explanation for the reasons identified above. He was not obliged to keep it in play as a possible, although unlikely, candidate. Secondly, the judge did not base his crucial finding of blunt trauma injury during the dissection stage simply on the fact that all other possible explanations had been eliminated. He based that finding on the totality of the evidence which he heard at trial. He treated the absence of any other plausible explanation as supporting his conclusion, not as providing the sole basis for that conclusion, as he explained in paragraph 76.5 of the judgment.

84. The fact that the defendant had not proffered any plausible explanation for the claimant's injury consistent with the exercise of due care did not convert the case into one of *res ipsa loquitur*. Nor did it reverse the burden of proof. Nevertheless this was a material factor, which the judge was entitled to take into account. See the reasoning of the Court of Appeal in *Thomas*.

85. Let me now draw the threads together. The judge had well in mind the limitations of *res ipsa loquitur*, as set out in *Ratcliffe*. He also had well in mind the principles stated by the House of Lords in *Rhesa Shipping*. He referred to both of those decisions in paragraph 68 and directed himself accordingly.

86. After considering the totality of the evidence the judge held that surgical trauma during dissection of the sigmoid colon had caused the neural injury. He reached this finding on the balance of probabilities, without relying upon *res ipsa loquitur*. The judge took care not to commit the *Rhesa Shipping* heresy.

87. I would therefore dismiss the second ground of appeal and give the answer "no" to the question posed in this part of the judgment.

Part 7. Executive summary and conclusion

88. On 26th September 2005 a consultant surgeon employed by the defendant operated on the claimant to repair a vesicovaginal fistula. Following the operation the claimant suffered numbness, pain and loss of motor function in her left leg, due to an injury to her femoral nerve.

89. The claimant claimed damages against the defendant NHS trust, alleging that the surgeon had directly injured the femoral nerve during the process of dissecting her sigmoid colon. The judge upheld that claim and awarded damages of £459,758.

90. The defendant appeals, asserting that the judge was not entitled on the basis of the evidence at trial to find that the surgeon had injured the femoral nerve. The judge ought to have found that this was merely one of two possible, but unlikely, explanations. Accordingly the claimant had not proved her case.

91. In my view, on a close analysis of the evidence (itself an unusual exercise for the Court of Appeal), the judge was entitled to make the findings of fact that he did. There is no dispute that if the surgeon directly injured the femoral nerve during dissection, that would be negligent.

92. If my Lords agree, this appeal will be dismissed.

Lord Justice McCombe:

93. I agree.

Sir Colin Rimer:

94. I also agree.