Johan Lange, Surgeon

'I was overconfident and I ended up removing part of the brachial plexus'

'In 1993, keyhole surgery was introduced in the treatment of complex regional pain syndrome. At the time, I was working in a hospital that was at the forefront of keyhole surgery and I had acquired a certain degree of esteem when it came to carrying out laparoscopies. It was therefore only natural that I should introduce this new operation in our hospital. I had absolutely no doubt that I would succeed; after all, I had introduced the previous keyhole operations successfully, had I not?'

In the early 1990s, Johan Lange was one of the first surgeons in the Netherlands to carry out a laparoscopy of the gallbladder. In subsequent years, he carried out keyhole surgery in the form of large bowel laparoscopies, gastroscopies and endoscopic surgery for inguinal hernia repair. He currently works as a surgeon at the Erasmus MC in Rotterdam and is patient safety coordinator for the Department of Surgery. He is chair of the Council for Patient Safety of the Dutch Surgical Association (NVvH) and, until recently, he was also course director for the master course in medicine at Erasmus MC.

'I was sensible enough to first watch the procedure being carried out by another surgeon who had performed the operation five times previously. Together with a colleague from my department, I assisted this surgeon with the procedure three times. It did not appear to be difficult and we returned home convinced that we could carry this out ourselves. We did ask our 'teacher' whether he thought his presence would be necessary during the first procedure, but he considered our experience with other types of laparoscopy sufficient to warrant us operating independently.'

Poor Planning

'The laparoscopy, which was performed on a patient with CRPS of the hand, was a rude awakening for us. We needed to cut through a particular nerve in the thoracic cavity but had great difficulty in locating it. As it happened, I was operating with the surgeon that had the most experience in the traditional 'open' version of this operation. The colleague with whom I had learned how to do the operation was not present at the time, which was, of course, poor planning to be begin with. When we thought that we had found the right nerve, we removed a section and sent it for examination as according to protocol. The operation appeared to have been a success and the patient's hand was dry following surgery, which is a good sign.

The next day, I received the pathologist's report. He had not only found sympathetic nerve tissue, but also tissue from the brachial plexus. At times like that, you feel as if the ground is about the crumble. I felt really bad when I went to see the patient. My fear was confirmed; she could not use several of the muscles

in her hand. The patient was immediately transferred to a university hospital where a neurosurgeon removed part of a nerve in her ankle and inserted it into the defect. It was a complex and unsuccessful procedure that resulted in new problems. In order to reach the nerve, the neurosurgeon had to first saw through the clavicle and then fixate it with screws; this never healed properly. The patient also experienced significant problems with the part of her ankle from which the section of nerve had been removed. Needless to say, she filed a complaint with the hospital. That was a hard blow, because I knew I was partly to blame. I had not taken the time for better training. I had allowed myself to get carried away by my success and was no longer fully aware of the risks involved. I had introduced previous laparotomies successfully and approached this one in the same manner, first watching and then performing the procedure ourselves. Perhaps it was simply the way things were done in those days, but it was, of course, irresponsible to start an operation when we were so poorly prepared. And deep down we were well aware of that.'

PUBLICATION

'I would like to have forgotten the whole episode as quickly as possible, but obviously that wasn't feasible. You have to face talking to the patient. Fortunately, those talks took place in the presence of the hospital complaints officer. It helped to have someone with me because the talks were emotional ones. The complaints officer was able to steer the conversations at the right time and in such a way that they were always concluded satisfactorily. We have always stayed 'on speaking terms'. The patient's overriding concern was not so much that I should have the book thrown at me, but that nothing like this should ever happen again. There was some talk of disciplinary action being taken, but in the end, she came up with a remarkable proposal. She would not take further action provided I wrote an article about the complication I had caused and that I had it published in a leading international medical journal, which I did. The article was accepted by the internationally renowned journal Surgical Endoscopy and published in 1995. The patient kept her word and, to my surprise, I received many positive responses from leading medical centres abroad as a result of my openness.'

TEAMWORK

'Immediately after the incident, my first reaction was to forget and to ignore what had happened. I took a step backwards professionally, and it would be another ten years before I performed this procedure again. However, the incident obviously got me thinking as a result of the task assigned to me by the patient. I have become more aware of the human factors involved in medicine, factors that are responsible for sixty percent of the errors we make as care providers. In my case, overconfidence and pride were to blame, my wanting to uphold the reputation I enjoyed. For others, fatigue, stress or problems at home are the cause. These things happen to all of us, and it is entirely human that they can temporarily distract us. It is therefore more important than ever for healthcare workers to be aware of

this, and that the system is geared to dealing with risk factors such as these.'

Complexity

'In my opinion, teamwork, together with briefings, debriefings and cross checks are the key to safer and better health care. You know, I double check you as you count your swabs, and you double check me as I am about to cut a bile duct. As a doctor, you are dependent on a multidisciplinary team, and greater emphasis should be placed on this during medical training, which is still too much geared towards the individual. The training at Erasmus MC includes group assignments and collaborative learning. This gives residents an idea of the complexity of certain problems and hopefully helps them to realise that you can no longer practice medicine on your own. Collaborative learning, however, is still not the same as learning to collaborate. If you train people to work in a team, every team member will be aware of their right, and indeed their obligation, to speak up if necessary. That is not criticism, but rather support. Moreover, well-trained team players do not have a problem in accepting that they are sometimes wrong; they have learnt to deal with personal fallibility.'

Lecture on Medical Errors

'For the last three years, as part of this approach, I have been giving lectures about my own medical errors. It is good for residents to learn how errors occur, how my attitude resulted in carelessness, but also the fact that no-one called me to account. Obviously I had my own responsibility, but so did my colleagues; the whole system failed. That system reaches beyond a single discipline, beyond the hospital walls in fact. Why did the surgeon I had watched perform the new type of laparoscopy let me go ahead with the operation? He also had a responsibility. A year ago, it finally became obligatory to involve a proctor if you want to introduce a new form of treatment. Moreover, you must inform the medical ethics committee about how you intend to realise the procedure. The move was long overdue, but at least you can no longer just to try something out.

The culture is changing slowly, but I'm optimistic. The lectures about my own errors are highly appreciated by residents; the lecture hall is always full. That is a good sign as the lectures help raise their risk awareness. I also try to encourage other doctors to talk about their errors and incidents during the lectures, but that is not so easy. Only four out of almost forty surgeons and PhD residents in my department have agreed to do so, which shows that the subject of discussing medical errors is still very much in its infancy.'