Traumatic experiences related to anaesthesia

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TRAUMATIC EXPERIENCES RELATED TO ANAESTHESIA

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When patients are questioned about the anaesthetics they have undergone, they usually recollect peri-operative experiences.(Moerman, van Damm, Oosting, 1992) And generally speaking, their experiences have not been an unqualified pleasure. The preoperative period is usually characterised by a high level of stress and anxiety. The induction of anaesthesia, particularly in childhood, results in unpleasant recollections related to the anaesthetic mask. The most frequently mentioned postoperative experiences are nausea and vomiting, pain and dizziness, which are also not particularly pleasant. These recollections are well-known.

What is less well-known is the fact that patients sometimes have recollections from the anaesthetic period itself. When patients report that they have been awake during the anaesthesia, they are usually confronted with disbelief and scepticism. Nevertheless, it still sometimes happens. They may have noticed something, heard voices or other sounds and sometimes they have also felt pain caused by the operation. This consciousness during the anaesthetic period is known as the "awareness" phenomenon. Patients have been aware during general anaesthesia and they have recollections of it. The awareness phenomenon is not well known, but what is even less well-known is the fact that "awareness" may cause psychological after-effects for a long time.(Blacher, 1975, Moerman, Bonke 1990, Moerman, Bonke, Oosting 1993, Peebles, 1989, Tracy J., 1993)

To illustrate what can happen the stories of three patients are presented. First some basic information about anaesthetic management is given. The anaesthesia can be divided in three stages: induction, maintenance and awakening period. Inducing anaesthesia in the adult patient is normally done by administering a sleep-inducing drug via an intravenous drip. When the patient is asleep a "tube" is inserted, using a special instrument, a laryngoscope. The tube passes the mouth and the vocal cords and is placed in the main bronchus. The purpose of intubation is to keep the airway free and to have a route for administering oxygen and anaesthetic vapours. To facilitate the intubation procedure, a muscle relaxant drug is given, also intravenously. For the maintenance of anaesthesia other drugs are administered such as hypnotics to induce sleep and analgetics to prevent the experience of pain. So, anaesthesia is based on the combination of three different types of drugs: hypnotics, analgetics and muscle relaxants. The proportion of the combination of these drugs depends on the patient's needs and the type of operation. The duration of the action of these different drugs is not equal. There are short-acting drugs and long-acting drugs. And it is possible for example that a muscle relaxant is working while hypnotic or analgetic drugs are insufficient for the surgical stress of that particular moment. The patient may then experience "awareness".

Bearing this in mind, let us now look at the three cases. The first patient is a 46year old woman admitted to hospital for an arthroscopy of the knee in day-surgery. Except for overweight, there were no abnormalities. Anaesthesia was induced with an induction agent (Methohexital 120 mg) intravenously. Furthermore an analgetic drug (Fentanyl 200 mg), and a muscle relaxant drug (Vecuronium 8 mg) were given. The anaesthesia was maintained with a mixture of 70% nitrous oxide in oxygen, and later, in the operating theater, continued in combination with isoflurane 2%.

Postoperatively, the patient reported that she had felt the intubation and heard conversation. This had made her very anxious. "I have never been so anxious in my whole life. This was because I knew that I was not falling asleep. I felt the tube going down my throat and then I knew things were not right because normally you are supposed to be asleep at that point. I felt that my eyes were closed. I heard them talking about my knee. I heard them saying: "She is too fat, with such a bad knee she should lose weight." I tried very hard to move, to open my eyes, to let them know that I could hear everything. I have never been so afraid. I felt completely powerless. Then I noticed that I was being wheeled to the operating theater. I heard them saying: "We are ready, how about you?" I was very frightened that the operation would start. Then I fall asleep. I have never had such an emotional experience in my life. You know, life has many ups and downs, but this was such a frightening experience, I cannot describe it."

Three months later, she said that for the first three days after surgery she had not dared to go to sleep, for fear that she might feel the anxiety again. She was still having bad dreams and waking up in terror, and the feelings of anxiety regularly overwhelmed her. The symptoms diminished in intensity during the next few years, but when she was confronted with a new operation three years later, the nightmares started again, causing panic attacks in the middle of the night.

The second patient, a 43-yr.-old woman, underwent surgery for the excision of a breast tumor. She was operated on in another hospital so no details are known of the anaesthetic procedure. "It was just a small tumor in my breast. It was a minor operation and of course I was tense, but I was not at all worried about the anaesthesia. In theater they were kind to me and in fact it was all very relaxed. The anaesthetist set up an intravenous drip and I went to sleep calmly. Suddenly I realized that I was awake. I heard voices, at first in a distance, but the voices became louder and louder. I could hear what they were talking about. I heard someone asking, "Can we start?" and then, "OK, let's start". I felt the first two incisions very clearly. It must have been a razor-sharp knife. And then I realized I could not move. I tried to talk, to move my legs and my arms and to sit up but I couldn't. What is going on? How can I let them know I am awake, that I am here? I was afraid that the operation would go on and that I would not be asleep. I became terribly anxious that I would feel pain. I felt completely helpless. You are at the mercy of someone else, you can't let anybody know. It seemed to last forever, but it could only have been ten minutes in reality, maybe less. I cannot say how long it lasted".

The night after the operation she did not dare to fall asleep. Each time she closed her eyes, she became frightened. When the fear welled up, she also felt it physically as a pain in her thighs. On the second day after surgery she was discharged from hospital. Once home, she became so frightened that she needed immediate psychotherapeutic help, which did make the anxiety somehow controllable. In the weeks after surgery she was very upset. She did not dare to be alone and was having nightmares in which she constantly had to walk but could not do so because of an inability to move her legs.

For a period of six months she experienced sleep problems. She had difficulty falling asleep, could not sleep deeply and she frequently woke up in terror. The unpleasant sensations in her thighs also bothered her during the day. Even during the interview, eight months after the operation, she said that in times of stress, she still sometimes had these sensations in her legs.

The third patient, a 28-year old woman was admitted to hospital for a minor oral operation in day-surgery. Following previous anaesthesia's she had always been extremely nauseous, and consequently she was very anxious about the anaesthetic. In order to reduce the possibility of postoperative nausea to a minimum a total intravenous anaesthesia with propofol was given (induction dosage 120 mg, followed by a continued

dosage of 10 mg/kg/hr). This anaesthetic drug is known for the low incidence of postoperative nausea and vomiting. Furthermore, an analgetic drug (250 mg fentanyl) was given, and muscle relaxation was achieved with vecuronium 5 mg. The lungs were ventilated with a mixture of oxygen and air.

Immediately after the anaesthesia, the patient answered the anaesthesiologist's question about how she felt by saying that she had "heard everything". Upon detailed questioning three hours later, it turned out that she had been aware during parts of the anaesthesia and operation. She had felt both the intubation and the drilling, heard people talking and recognized the anaesthesiologist's voice. She had also heard the surgeon asking someone to hand him something, upon which she concentrated keenly on his voice because she wanted to know who was operating on her. She had not actually felt pain, but had been afraid that she would all the time. She had tried to alert someone by moving her hands and feet, but had been unable to do so. She had not been able to open her eyes either. She said that all this had been exceedingly frightening and during the interview she was clearly emotional. She was, however, very satisfied with the type of anaesthesia she had received, because this time she had not been sick at all.

Nine days later, back in hospital for an out-patient check-up, the whole experience was already quite remote. While she described how frightened she had been, she also believed that it had not left her with unpleasant after-effects. She was still exceptionally satisfied with the fact that she had not been sick afterwards and said: "Next time, I would like to have the same anaesthetic, but just a little bit more, please".

The histories of the first two patients clearly show the emotional impact of such experiences and how long the psychological after-effects can linger. The course of events with the third patient, however, illustrates that such experiences, although extremely unpleasant, do not necessarily lead to long-lasting problems or complaints. It is hard to say why the third patient did not suffer unpleasant after-effects, at least in the short term. What may have played a role is that she was very satisfied with the kind of anaesthesia given, because she did not experience the nausea she expected. Moreover, she was able, and was given the opportunity, to relate what had happened, and she knew that she was taken seriously. This too may have contributed to the relatively problem-free outcome.

Why is the occurrence of awareness so disturbing for patients? Strangely enough it is not having been awake as such which is the problem, but not having been able to move and alert somebody. This causes a feeling of powerlessness and may lead to a great deal of anxiety. Particularly the feeling that something is wrong, plays an important role. Fear that one may start to feel the operation, and perhaps even pain, increases the anxiety and may give rise to panic. These intense sensations and experiences of anxiety do have consequences. Sleep disturbances, such as not daring to go to sleep, nightmares, and waking up with anxiety, are mentioned most frequently. During the day, it is often the feelings of discomfort and uneasiness, of not being oneself. Also, unexpected memories of distress and anxiety may occur. These phenomena may last anything from a few weeks to a few months or even longer, (Moerman, Bonke, Oosting 1993). A characteristic feature is also an increased fear of anaesthesia. The prospect of having to undergo another operation, or any other procedure that necessitates the use of anaesthetics, may set off the anxiety once again.

The stories of the patients presented here, do illustrate very clearly that although the incidence of awareness is low, patients do sometimes have recollections from the anaesthetic period itself, and that these experiences of awareness may trouble them for a long time. It is extremely important to take these patients seriously and to provide them, if possible, with information about anaesthetic management (Ghoneim, 1992). These points, acknowledgement and recognition of what has happened to them and information about how this was possible, will help them to overcome the unwanted after effects.

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