



Experience

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As blue as Lake Louise

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Professor Murphy, head of ear, nose, throat, head and neck surgery, was not an easy man to deal with. He had fought and won many battles and, although he appeared to listen to others when he felt that doing so might further his cause, a demon dwelled inside him waiting to lash out at any sign of disloyalty to his masterpiece — namely, the department and its requirements. It was with good reason that he acquired, unknowingly, the sobriquet “the human ripsaw.”

It was a patient in unfortunate circumstances who gave him cause to invent a theory regarding the lymphatic drainage of the tonsil. Under the aegis of Professor Murphy this patient was being treated for carcinoma of the nasopharynx when, sadly, a second carcinoma developed in the right tonsil. The human ripsaw was informed of this turn of events on his ward rounds and took the news personally. His assumption appeared to be that we, the humble resident staff, had contrived the situation to blacken his name. At the time, he was in the middle of a fierce battle with the department of radiotherapy, whose members believed that there was a place here and there for nonsurgical treatment. The radiotherapists eventually suffered great damage at his hands, but on the occasion of which I speak the battle was in full swing, the outcome was not yet established and the ripsaw was scorching for a fight. Unfortunately, I gave him what seemed like just cause.

Carcinoma of the nasopharynx notoriously spreads into the lymph glands draining the nasopharynx. The tonsil is not usually described as one of them. The ripsaw claimed that the cancer had spread from the nasopharynx to the tonsil by way of the lymphatic drainage and that this explained the patient's reluctance to be cured. When the professor expounded on the subject, I foolishly suggested that the tonsil is usually described as a *beginning*, not an *end* station, for lymphatics and that the lymphatic tissue that existed therein, close to the oral cavity, tongue and pharynx, functioned by collecting bacteria and other foreign materials from the pharynx. From there, lymph channels drained *out*, not *in*. This at least was my understanding. In fact, a quick view of *Gray's Anatomy* showed that Gray and I agreed. Characteristically, the ripsaw declined to agree with anyone on that day. He thrust his jaw out in a primeval manner, and I had the feeling that if pushed a little further — for example, by a junior contradicting him or even hesitating to agree with his edicts — he would bite. “I don't give a damn what the book says,” he growled. “Drainage occurs from the nasopharynx to the tonsil, and you are going to prove it.” I believe a little smoke could be seen escaping from his ears and nostrils and that, if one looked carefully, a strange glow could be seen through his pupils.

I searched long and hard for a method of resolving this matter and asked many researchers, some of them quite famous. With their help, I devised what I felt would be a simple and harmless experiment.

The dye known as Prussian blue was inexpensive and easily obtained from the manufacturer. It was described as being “taken up by the tissues, especially the lymphatics,” and was of course innocent of any harmful effects. The investigative plan, which rested on the use of this dye, was as follows:

1. During a tonsillectomy and adenoidectomy, once the anesthetic has been given, inject a very small quantity (0.25 mL) of Prussian blue into the nasopharynx.
2. Wait 20 minutes.
3. Remove the tonsils and look for Prussian blue. Examine the tissue more carefully in the laboratory later.



4. Remove the adenoids and complete the operation.

If the dye travelled from the nasopharynx to the tonsil, this would indicate that indeed some lymphatics might drain in the direction the rip saw had supposed, or at least that further studies to clarify the issue might be warranted.

Naturally, the proposed plan had to be cleared by the research ethics committee and the parents had to sign an agreement, which itself had to be checked for legality and so on. All of this was duly completed, and the rip saw was approached. He appeared to be agreeable in principle but unimpressed. He usually took more interest in creating problems than in solving them.

The great day came and into the operating suite came 3 little children with chronic tonsillitis. The Prussian blue was injected according to the proposal, and 20 minutes later by the clock the tonsils were removed. No blue col-

oration was found at the time or later upon laboratory examination.

It was a pyrrhic victory. The concurrence with *Gray's Anatomy* was satisfying, but Gray was long since dead and the human rip saw still very much alive.

The children survived the simple surgery, although they were somewhat sore. They all went home the next day and returned a week later to the clinic. It was there that I had the memorable experience of which I write.

On being apprised of their arrival in the waiting room, I entered with charts in hand and what I supposed to be my usual reassuring grin to express warmth and a notion of caring. And there they were: 3 Prussian blue children.

Prussian blue is definitely "taken up by the tissues," including the skin, the sclera, the lips and the tongue. Practically every part of the body can turn bright sky blue after as little as 0.25 mL has been injected into the nasopharynx.

Every part, that is, except the tonsils. ?

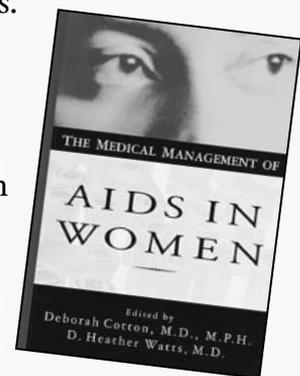
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