Where Does Essential Reporting Stop and Where Does ‘L’art pour l’art’ Begin while Imaging the Middle Ear?

Middle ear surgery has been performed for decades without prior imaging of the temporal bone. Clinical history and examination were deemed sufficient for the diagnosis and the decision to operate. During the last decade, imaging techniques have improved considerably, now making it possible to visualize even the smallest anatomical details. Amazed by the quality of the images provided by fellow radiologists, surgeons have begun to include imaging of the temporal bone in their preoperative evaluation. This was soon considered mandatory by many and now appears as such in guidelines edited by some national ENT societies.

However, the rationale sustaining this rule is questionable as no one has evaluated the extent to which temporal bone imaging modifies the diagnosis, helps when choosing the surgical strategy and diminishes the rate of complications.

The debate can be illustrated by the following example. In young patients with a history of progressive hearing loss, normal otoscopy, negative Rinne test, pure-tone audiogram revealing conductive hearing loss and Carhart notch, and middle ear impedance measurements showing absent stapedius reflex, the diagnosis of otosclerosis seems highly probable, even more so when patients report a family history of otosclerosis, with some relatives operated on successfully. For the last 30 years, our strat-

egy in such cases has been to perform a surgical exploration of the middle ear without additional preoperative examination. The diagnosis was confirmed by the observation of a fixed stapes which was replaced by a prosthesis during the same procedure. Surgery is performed on an outpatient basis, under local anesthesia, via a transcanal approach through an ear speculum. The rates of success and complications in 604 cases operated between 1974 and 1997 were equivalent to those reported in the majority of published series. In this example the clinical history and the findings are very consistent with the diagnosis of otosclerosis. Findings are not always as obvious, and in some rare cases exploration revealed a normally vibrating ossicular chain. In these cases, the exploration was stopped, and further investigations were carried out. In retrospect, some of these patients might have suffered from a canal dehiscence, mimicking a conductive hearing loss, a concept that was later described in the late 1990s. Even if a preoperative CT avoids these rare situations, its routine use is not justified. Indeed, we must first consider its price and second the fact that an exploration of the ear is a minimally invasive procedure. Similar thinking can be applied to cases suffering from chronic inactive otitis media without and even with cholesteatoma, where the extension of the lesion can be evaluated during surgery.

While preparing this issue, I had several discussions with renowned ear surgeons, some of them involved in the edition of guidelines recommending routine imaging before surgery. Most if not all of them felt that the strategy or the result of the surgery is rarely changed by a CT scan preoperatively. Also, those involved in humanitarian missions disclosed that even when such examinations are not available, they still operate without facing major difficulties!

One wonders if surgeons are following these guidelines because they consider imaging necessary or because they hope it might be useful in case of dispute. How does a prosecutor react when the defendant has ignored a rule whose rationale has not been demonstrated scientifically? Ethical and legal issues are important components of the very complex picture of health care. To understand the whole picture, economic issues must also be taken into consideration. That is why we have invited an ethicist interested in the distribution of financial resources to participate in the discussion.

I warmly thank the participants to this issue. However, it was difficult for them to provide evidence demonstrat-

ing the benefit of a radiological examination prior to operating the middle ear. Doing it or not probably depends more on some acquired habits or dogma than on rational thinking. This is certainly the kind of reasoning that was applied by some schools of medicine which recommended to perform systematically a Schüller's view prior to surgery. Today, most would consider that the definition of Schüller's view is too poor to provide any useful information.

As outlined by Olivier Guillod in his paper, today the fear of legal action leads physicians to practise defensive medicine, but the situation may change as the costs of health care cannot definitely increase forever. 'Considering health cost may also confirm a progressive shift in the main determinants of the professional behaviour of physicians' says Guillod.

Finally, I was also a little bit disappointed that none of the 3 invited radiologists did provide the promised paper! Did they fear the debate? Today, it has been launched, and we may expect some reactions of our readers that we will be pleased to publish in the following issue of the journal.

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