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Otogenic brain complications, simulation training and low-molecular-weight heparin salvage in pedicled flap head and neck reconstruction

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Editorial

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Early studies have studied the risk of developing intracranial complications in otitis media. ¹⁻³ Although rare in developed countries, otogenic brain complications still occur as a severe and potentially fatal consequence of active otitis media. In this month's issue of The Journal, Gkrinia and colleagues systematically review and conduct a meta-analysis of the existing evidence regarding the prevalence, presentation, microbiology, treatment options, morbidity and mortality rates of otogenic brain complications. ⁴

In their review, twenty-eight studies, with 1650 patients in total, were included. In 66 per cent of patients there was a known history of chronic otitis media. The most common symptoms were purulent otorrhoea (84 per cent), headache (65 per cent) and otalgia (45 per cent). A brain abscess was observed in 49 per cent of patients, followed by meningitis (34 per cent) and sinus thrombosis (22 per cent). A combination of surgical and conservative therapy was chosen in 84.3 per cent of cases and the mortality rate approached 11.1 per cent.

Two articles in this month's issue focus on surgical simulation. Brennan *et al* highlight the importance of simulation-based training in rhinology training and the beneficial impact of simulation models on trainee development.⁵ Yao *et al* assess the perceived benefits of a virtual reality temporal bone simulator drilling competition.⁶

Finally, a prospective study in this month's issues addresses the question as to whether systemic administration of low-molecular-weight heparin can support salvage of venous compromise in loco-regional head and neck reconstruction. In their study, it was found that 48.9 per cent of flaps could be effectively salvaged following the administration of low-molecular-weight heparin, with a significantly lower incidence of partial and complete flap loss compared with the control group. In addition, administration of low-molecular-weight heparin earlier, within 12–24 hours of flap congestion, was associated with a higher salvage rate (odds ratio 16.6). However, the use of low-molecular-weight heparin was associated with a higher incidence of secondary haemorrhage rates.

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