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LETTER TO THE EDITOR

Is it fluid or air causing anesthesia mumps?

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To the Editor:

We read with great interest the letter in the recent publication of the journal by Tekelioglu et al. [1]. The authors described a case that developed anesthesia mumps after general anesthesia and diagnosed the swelling as pneumoparotitis. The clue for identification might be "crepitation on palpation."

Anesthesia mumps itself is not a popular complication of general anesthesia; however, it is not an uncommon disease. There are many reports describing the incidence internationally [2] (Table 1) and we had also reported two cases with no crepitation [3]. The cause is generally considered to be associated with transient obstruction of the salivary gland duct by mechanical compression with airway devices and acceleration of salivary secretion during general anesthesia. Another disease requiring differential diagnosis of the swelling is pneumoparotitis, as Takelioglu et al. [1] described (Table 1). Pneumoparotitis shows the presence of air in the parotid gland and its duct and is seen as an occupational hazard in musicians, glass blowers, and balloon blowers [4]. Although pneumoparotitis might be considered as a relatively rare disease, many diagnostic imagings had been applied for identification [4].

As far as we know, the case introduced by Takelioglu et al. [1] is the first presentation of pneumoparotitis as anesthesia mumps. Serin et al. [2] mentioned the possibility of the retrograde passage of air into and swelling of the parotid gland. However, no anesthesiologist has found

Table 1 Notable case reports of anesthesia mumps and pneumoparotitis

Suspected factor	Authors	Year	*n*
Endotracheal intubation	Baykal and Karapolat [6]	2009	1
	Adachi et al. [3]	2008	2
	Cavaliere et al. [7]	2009	1
	Serin et al. [2]	2007	1
	Liu et al. [8]	2007	2
	Matsuse et al. [9]	1998	3
	Kimura et al. [10]	1993	6
	Katayama et al. [11]	1990	1
	Matsuki et al. [12]	1975	5
	Reilly [13]	1970	3
	Bonchek [14]	1969	1
	Attas et al. [15]	1968	7
Laryngeal mask airway	Fuhrmeister et al. [16]	2005	1
	Ogata et al. [17]	2000	1
	Hooda and Gupta [18]	1998	1
	Harada [19]	1992	1
Pneumoparotitis	Tekelioglu et al. [1]	2012	1
	Ghanem et al. [20]	2011	1
	Aghaei Lasboo et al. [21]	2010	1
	Kirsch et al. [5]	1999	1
	Birzgalis et al. [22]	1993	1
	Markowitz-Spence et al. [4]	1987	1
Peroral endoscopy	Işler et al. [23]	2011	1
	Bahadur et al. [24]	2006	1
	Nijhawan and Rai [25]	1992	1
	Martin [26]	1980	1
	Slaughter [27]	1975	1

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crepitation on palpation and proven the presence of air systematically. Some reporters apparently failed to express air by pressing the tissue. It is slightly disappointing that there was no more detailed description for the properties of palpation and the findings of radiologic or ultrasound examination in the letter [1].

Similar swelling has been found after peroral endoscopic examinations (Table 1). In the area of gastrointestinal endoscopy, there is also discussion about the etiology of salivary gland swelling. The sign of crepitation might be considered as an important criterion; however, sensitivity and specificity were low [5], and the case failed to demonstrate the presence of air with computed tomography, as reported.

Anesthesia mumps is not uncommon but is an unfamiliar complication for anesthesiologists, again, and the mechanisms of swelling of the parotid gland are completely different between conventional anesthesia mumps and pneumoparotitis, the obstruction of and the relaxing dilatation of Stensen's duct, the fluid, and air. Although the abnormality is asymptomatic and the prognosis might be well, we should be taking care for this complication, and further intensive observation and imaging studies for differential diagnosis could be required.

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