Lesson of the Week

Impacted dentures mimicking brain stem stroke in a conscious patient

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Removal of dentures and other foreign objects from the mouth and pharynx is a basic procedure in the management of the unconscious patient. Impaction of dentures in the pharynx of a conscious patient would not normally be suspected unless there was obvious upper airways obstruction or dysphagia. Here we describe a patient who was admitted with confusion, dysarthria, and right middle lobe pneumonia and who died 36 hours later of inhalation of blood from pharyngeal lacerations caused by impacted dentures.

Case report

A 79 year old man was admitted as an emergency with shortness of breath, confusion, and slurred speech. He had been found by relatives on the morning of admission lying on the floor incontinent of urine and faeces, but conscious. The patient was too confused to elaborate on the history. Although he lived alone, he had been seen by a relative the night before and appeared quite well. There was no relevant medical history apart from a brain stem stroke in 1974, which had left him with mild dysphagia, dysarthria, and ataxia. Examination on admission showed an alert, agitated, and disoriented patient who was mildly dehydrated. The respiratory rate was 28/min and bilateral coarse crepitations were audible in the chest. There was appreciable dysarthria, absent gag reflex, and slight left facial asymmetry. His power, tone, and coordination were normal but his gait was broad based and ataxic. The reflexes were symmetrical with bilateral extensor responses. There were no other relevant findings on examination. Abnormal investigations included a leucocytosis of 17.3 × 10⁹ (54 mm Hg), PO₂ 7 kPa (55 mm Hg), and shadowing in the right middle lobe on a chest X-ray (fig 1). The diagnoses were of brain stem stroke and right middle lobe pneumonia. His confusion was thought to be related to dehydration, chest infection, and hypoxia.

He was treated with bed rest, rehydration, and parenteral, broad spectrum antibiotics. An attempt to feed him orally resulted in choking. This was thought to be due to impaired swallowing related to his brain stem stroke. His condition remained stable until the second night of admission, when after vomiting a large quantity of fresh blood he had a cardiopulmonary arrest. A complete set of dentures was removed from his mouth. He was intubated with difficulty and given cardiopulmonary resuscitation. The electrocardiogram showed asystole, which was unresponsive to all manoeuvres. Necropsy showed impaction of the lower set of another pair of dentures in the pharynx with multiple pharyngeal lacerations, a moderate amount of blood in the upper gastrointestinal tract, and tracheobronchial aspiration of blood. There were no bleeding sites visible in the oesophagus, stomach, or duodenum. There was haemorrhagic consolidation and collapse of the right middle and both lower lobes of the lungs. There was no evidence of recent

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The possible presence of dentures should never be forgotten, particularly in patients with an anaesthetised pharynx.
brain stem infarction or other new cerebrovascular disease. Examination of the heart showed an old intramural anterior myocardial infarction and changes consistent with cardiac resuscitation. It was presumed that the dentures were the direct cause of death from pharyngeal bleeding and inhalation of blood. Initially it was thought that the dentures had become impacted at the time of his arrest; however, review of his admission chest x ray film showed that they had been present in his pharynx from at least the time of admission (figs 1 and 2). A routine posteroanterior chest x ray film did not show the dentures because it did not include examination of the neck. After being told the diagnosis the patient’s relatives said that they had brought in his spare set of dentures during the admission as they could not find the lower set at home.

Discussion

To our knowledge there have been no published reports of a similar case. It is impossible to know the sequence of events which preceded this admission because an adequate history could not be obtained. It seems likely that this patient’s neurological deficit predisposed him to impaction of the dentures. In addition, the development of dysarthria, choking, and inhalation pneumonia was related to the presence of a foreign body and not to a new neurological event.

USSR Letter

Dispenserisation for all

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It is conventional, and perhaps even obligatory, for official accounts to affirm the superiority of the Soviet health service over systems of medical care in so called capitalist countries. Among the various organisational features cited heavy emphasis is given to the absence of payment for consultation and treatment. Another feature which also allegedly flows from the socialist character of the Soviet polity is a set of interrelated procedures which are collectively known as dispenserisation (dispenserizatsiya).

Defining the term

The derivation of that word can be explained by the adoption in prerevolutionary Russia of the dispensary concept as developed in Britain and France during the eighteenth and nineteenth centuries. Nevertheless, the textbooks link the abstract noun dispenserisation with the name of N A Semashko, who was the first "People’s Commissar of Health Protection" in the Russian Republic. He may have coined the term, and in any event he gave it currency in publications which provided a theoretical rationale for the preventive orientation of Soviet medical practice.

But what do the Russians understand by dispenserisation? At what is now presumably an advanced stage of conceptual evolution, the term was recently defined as follows:

“Active and ongoing surveillance of the health condition of specified population contingents (healthy and sick persons); registration of these population groups with the object of achieving the early detection of illnesses and the ongoing surveillance and complex treatment of persons who are ill; undertaking measures...