CASE REPORT

Unusual 'feathery' cause of a parapharyngeal abscess in an infant

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SUMMARY

A 7-month-old boy presented to the emergency department with reduced oral intake, neck swelling and fever. Clinical examination revealed a 3 cm left parotid and left level I neck swelling with left medialised tonsil but no trismus. Computed imaging confirmed the presence of an abscess in the peritonsillar area with extension into the parapharyngeal space and deep lobe of the parotid gland. The abscess was incised and drained transorally. Following drainage of the abscess, a small 3 mm suspicious foreign body was seen. After extraction, this was revealed to be a 60 mm feather. We would like to highlight this unusual case in an infant and to ensure that foreign body is considered as aetiology. There are only a handful of cases in the literature involving feathers causing neck abscesses and, to our knowledge, this is the first case where the patient presented with a pharyngeal abscess, which was drained transorally.

BACKGROUND

Peritonsillar abscess (quinsy) is believed to arise from tonsillar infection leading to a collection of pus in the peritonsillar tissue, commonly affecting children, teenagers and adults. An infant presenting with quinsy, however, is very rare.^{1,2} We present an unusual case of a 7-month-old boy who presented with a clinical picture of quinsy which eventually showed to have an unusual cause.

CASE PRESENTATION

A 7-month-old boy, who was previously fit and well, presented to our emergency department with

Figure 2 3 mm foreign body seen on inferior aspect of tonsil (circle).

a 2-week history of reduced oral intake and left-sided neck and facial swelling. Clinical examination found him to be feverish, with a 3 cm swelling over the left parotid and left neck levels I and II. He had good range of neck movements with no overlying skin erythema. Oropharyngeal examination showed left peritonsillar swelling with medialisation of the tonsil but no trismus. An infective process was confirmed by blood tests, showing increased neutrophils at 20.7×10^9 and C reactive protein at 35 mg/L. Due to the unusual presentation of a quinsy in an infant and associated neck swelling, deep neck space extension was suspected and CT performed. The airway was secured prior to CT imaging due to concerns with the child's airway and his age.

INVESTIGATIONS

CT imaging (figure 1) showed evidence of an abscess in the left peritonsillar areas extending into the left parapharyngeal space and deep lobe of the parotid gland.

TREATMENT

The child was immediately transferred to the operating theatre for abscess drainage. Intraoperatively, pus was seen discharging laterally to the inferior left tonsil. This area was incised with the drainage of copious amounts of pus. Pressure was applied externally to the parotid area to ensure the intra-oral drainage of all pus. Following drainage, a small 3 mm white foreign body was seen (figure 2). This

Figure 1 CT imaging with contrast showing abscess in the left peritonsillar area extending into the parapharyngeal space and involving the parotid gland (arrow).

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Figure 3 Feather being extracted from the tonsil tissue.

was gently extracted and found to be a feather measuring 60 mm in length (figures 3 and 4).

OUTCOME AND FOLLOW-UP

The child was treated with intravenous Co-amoxiclav and subsequently made a full recovery after a 5-day inpatient stay. Microbiology cultures demonstrated growth of *Streptococcus oralis*, *Streptococcus mitis* and *Neisseria cinerea*, which were all sensitive to penicillin. Histological analysis confirmed foreign body reaction with no evidence of teratoma.

DISCUSSION

Feather foreign body causing parotid or neck abscesses have previously been reported in the literature with the children aged between 10 and 12 months.^{3–7} Four of the five papers describe how the feather is likely to have entered the neck externally, by either skin penetration by the sharp tip of the feather or

Figure 4 60 mm feather.

Learning points

- ▶ Infants presenting with peritonsillar abscess especially one causing parapharyngeal collection is rare.
- ▶ A high index of suspicion is recommended to consider foreign body as a cause for unusual infection in infants.
- ▶ The foreign body may not be easily seen intraoperatively.
- ▶ Foreign body such as a feather is not usually visualised on imaging.
- ▶ We need to raise awareness about potential hazards of using feather-filled pillows and duvets for children, especially for those younger than 12 months of age.

by entering an open external abscess cavity following abscess drainage, causing a recurrent abscess.^{4–7} There has only been one paper where the feather is believed to have entered intraorally and migrated to the parotid gland via Stenson's duct.³ In our patient, we believe the feather entered intraorally and over time, embedded into the tonsil tissue. This allowed us to drain the abscess transorally, in contrast with the other cases where all the abscesses were drained externally. On further discussion with the patient's parents, it is believed the feather could have originated from the parents' bedding. This is consistent with findings from other cases where the feather is believed to have originated from the child's feather-filled pillow or duvet.^{4–7}

CT imaging was re-reviewed postoperatively, but again no evidence of foreign body was seen. Shah and McLear had a similar finding and postulated whether ultrasound imaging would have better demonstrated the feather.⁵ However, in our case, it is unlikely to have been visualised on ultrasound, as the feather was embedded within the tonsillar tissue.

It is very rare for infants to present with quinsy infection, especially one with an associated parapharyngeal abscess.^{1 2 8} We advocate a high index of suspicion to consider foreign body as a cause in the event of quinsy in an infant. The foreign body may not be easy to find, as in this case, where only a thin 3 mm foreign body was initially seen (figure 2). Parents need to be counselled about the hazards of using feather-filled pillows and duvets for children, especially for those younger than 12 months of age.

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