CASE REPORT

Treatment of a branchial sinus tract by sclerotherapy

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A 16-year-old female presented with a sinus on the skin just medial to the right clavicle, which had discharged clear fluid on a daily basis for a number of years. A sinogram was performed and showed a long sinus tract extending from the region of the right clavicle to the lateral pharyngeal wall. Surgical treatment would have required an extensive procedure and seemed inappropriate in view of the relatively mild symptoms the patient was experiencing. Instead sclerotherapy was used to induce healing of the lesion. This was performed using 3% sodium tetradecyl sulphate foam delivered *via* a catheter along the entire length of the tract. There were no immediate complications from this procedure and on review at 1 and 6 weeks post-procedure the patient reported a significant improvement in the fluid discharge. At 1 year post-procedure this improvement had been sustained. The patient did report an occasional discharge from the sinus tract orifice at the base of her neck, but she did not feel that this was a significant problem and declined any further treatment.

Dentomaxillofacial Radiology (2011) **40**, 130–132. doi: 10.1259/dmfr/18419446

Keywords: branchial sinus; sclerotherapy

Case report

A 16-year-old female was referred from the Ear, Nose and Throat (ENT) department with a sinus on the skin just medial to the right clavicle, which had discharged clear fluid on a daily basis for a number of years. A provisional diagnosis of branchial fistula was made and a sinogram was performed under fluoroscopic control (Figure 1). This revealed a long sinus tract extending from the region of the right clavicle to the lateral pharyngeal wall. To gain further information about the anatomical relations of the tract, a CT sinogram was performed and showed that the sinus passed from the skin surface close to the right clavicle along the anterior aspect of the sternocleidomastoid muscle, then along the medial aspect of the carotid sheath (Figure 2). The case was discussed with the ENT department who were reluctant to undertake any surgical treatment as this would have required a relatively extensive procedure, which seemed inappropriate. The suggested alternative was to use sclerotherapy to induce healing of the lesion. The patient consented to this technique after explanation that this was an established treatment for other developmental vascular anomalies^{1,2} and would

still allow surgical intervention to be used if it was unsuccessful.

A guidewire was introduced into the sinus opening at the base of the neck followed by a 4-Fr dilator (Terumo UK Ltd), which was advanced along the tract. Then 0.5 ml of 3% sodium tetradecyl sulphate (STD) foam was slowly injected while withdrawing the dilator to ensure that the sclerosant was evenly deposited along the entire length of the tract. The patient did not report any discomfort during the procedure and did not require anaesthesia.

There were no immediate complications from this procedure and on review at 1 and 6 weeks post-procedure the patient reported a significant improvement in the discharge of fluid from the sinus orifice. At 1 year post-procedure this improvement had been sustained, but the patient reported an occasional discharge 1–2 times per month. She did not find this a significant problem and declined the offer of a further treatment of sclerotherapy.

Discussion

Sclerotherapy using STD foam is an established technique for the treatment of developmental vascular anomalies.^{1,2} This case illustrates a role for this

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Received 17 August 2009; revised 10 December 2009; accepted 23 December 2009

Figure 1 (a,b) Sinogram images demonstrating the course of the sinus tract from the base of the neck to the right pharyngeal region

Figure 2 (a–e) CT images following the injection of contrast into the sinus tract demonstrating the course of the sinus tract in the neck, passing up anterior to sternocleidomastoid and then along the carotid sheath before entering the pharynx posterior to the right tonsil

technique in treating developmental fistulas. In common with other types of sclerotherapy more than one

episode of treatment may be required to achieve complete resolution of the lesion.

References

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