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PHOTO QUIZ

Neck swelling following a vigorous neck massage

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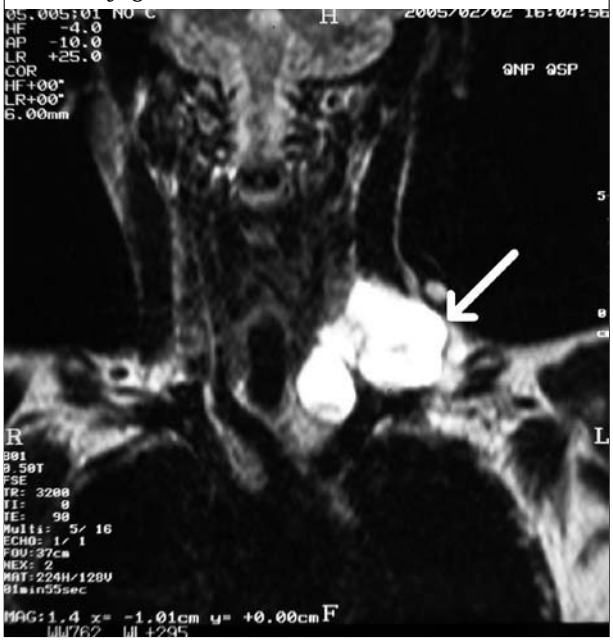
CASE REPORT

A 19-year-old man was admitted with a left supraclavicular mass that had been present for three days, and had started two days after undergoing vigorous massage of the neck by a professional masseur. The mass had increased progressively in size over the ensuing three days prior to attendance at the hospital, but there were no other relevant symptoms, and specifically no dyspnoea or dysphagia. On physical examination, there was a 6 x 5 x 6 cm painless and fluctuant mass in the left supraclavicular fossa, overlapping the sternocleidomastoid muscle anteriorly, and no coexisting adenopathy or additional neck mass. Ultrasonography of the neck revealed a fluid mass suggesting a venous haemorrhage within the neck musculature, whereas magnetic resonance imaging (MRI) demonstrated a 6 x 5.5 x 6 cm cystic mass located in the supraclavicular region between the carotid artery and internal jugular vein (*figure 1*). Percutaneous needle aspiration was performed, and the aspirate found to be milky macroscopically. Biochemical analysis of the fluid revealed the following: cholesterol 90 mg/dl, triglycerides 2400 mg/dl, and white blood cell count 3200 cells/mm^3 (80% lymphocytes).

Figure 1. *MRI: A cystic mass located in the supraclavicular region between the carotid artery and internal jugular vein*



WHAT IS YOUR DIAGNOSIS?

See page 221 fot the answer to this photo quiz.

ANSWER TO PHOTO QUIZ (ON PAGE 219)

NECK SWELLING FOLLOWING A VIGOROUS NECK MASSAGE

DIAGNOSIS

The thoracic duct is the main collecting vessel of the lymphatic system. It is the common trunk of almost all the lymphatic vessels of the body (*figure 2*). Injuries of the thoracic duct at neck dissection occur in 1 to 6% of cases, with the majority of the cases being on the left side, but they may also result from penetrating and blunt trauma.[1] Injury to the thoracic duct resulting in leakage of lymph presents in the form of a chylous fistula, chylothorax, or lymphocele. The diagnosis of this case was considered to be a cervical lymphocele. The lymphocele is defined as a circumscribed fluid collection without an epithelial lining and is attributable to persistent leakage into a confined space.[2] Ultrasound, computed tomography scan and MRI are useful in delineating the precise extent of the lesion. Aspiration of the cyst is important for the diagnosis in that it should reveal a milky fluid owing to its fat content, the concentration of which should range between 0.4 and 4% depending upon the diet.

In most cases treatment is conservative and includes bed rest, head elevation, continuation of closed drainage, dietary restriction and external pressure.[3] Although conservative treatment is successful in controlling the majority of lymph leaks, surgery is found to be necessary in persistent chylous fistula or when fistula drainage exceeds 500 to 600 ml per day.[4] The size of the lesion, failure of conservative management, and the presence of compression symptoms are the other indications for surgical treatment. In this case the treatment, which was conservative, included serial percutaneous aspiration (a total 70 ml over seven days), a low fat diet and repeated pressure dressings. Examination one month later showed no evidence of a recurrence of the mass, and an MRI performed concurrently also showed complete regression of the pathology (*figure 3*). One year after treatment, the patient was asymptomatic and showed no evidence of disease or recurrence of the lymphocele.

Figure 2. *The thoracic duct*

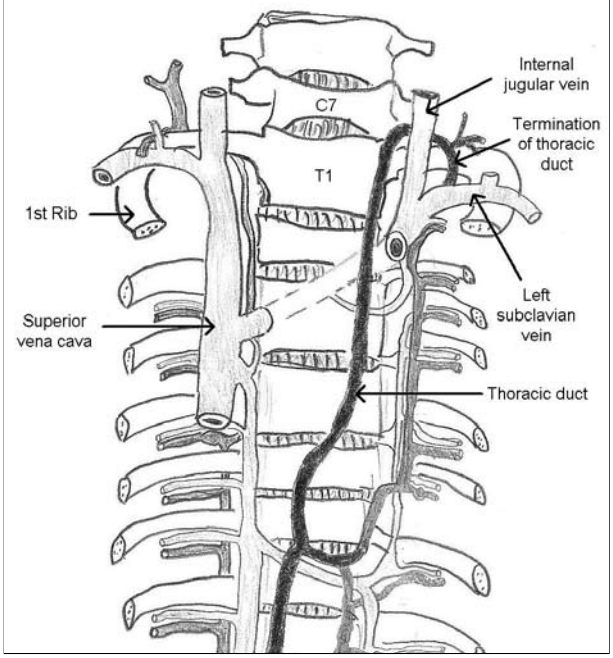
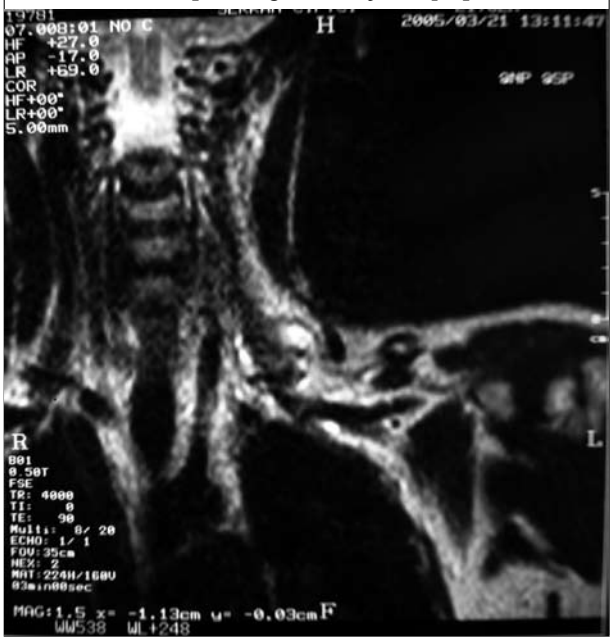


Figure 3. *An MRI was performed after one month and showed complete regression of the lymphocele*



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4. Hehar SS, Bradley PJ. Management of chyle leaks. Curr Opinion Otol 2001;9:120-5.