Spontaneous chylothorax due to a left neck mass: Case report and literature review of a rare clinical entity

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Case Report

A 36 year-old woman presented to A&E with a two day history of painful left-sided neck swelling associated with odynophagia and left otalgia. There was no history of trauma, malignancy or contact with tuberculosis. She had experienced a previous similar episode 2 years previously for which her GP had referred her to ENT, but which had resolved by the time of her appointment.

Examination revealed diffuse swelling of the left neck extending to the chest wall with no discrete lymphadenopathy or collection. Blood tests showed mildly elevated inflammatory markers.

Ultrasound and CT imaging showed soft tissue inflammation with reactive lymph nodes and bilateral pleural effusions. Aspiration yielded milky fluid which was proved to be chyle (protein 35 g/L, cholesterol 2.62 mmol/L, triglycerides 36.5 mmol/L).

Microscopy and culture of pleural fluid, sputum, and blood yielded no growth, no acid-fast bacilli, and no cytologically abnormal cells. The patient was investigated by the ENT and respiratory teams; no evidence of infection or malignancy was found.

The patient was treated with a low fat diet and her symptoms resolved within 3 days. At follow-up both the neck swelling and pleural effusions had completely resolved.

Figure 2: Left – admission chest X-ray shows small bilateral effusions. Right – repeat chest X-ray shows resolution.

Discussion

The most common causes of chyle leak are trauma, malignancy, and tuberculosis. All new pleural effusions should be aspirated, and a finding of chyle should prompt a search for a cause, particularly malignancy or atypical infection.

Spontaneous chylothorax and left or bilateral neck swelling in the absence of any definite cause has been described infrequently in the literature, always in women. In many cases the onset followed minor exertion – for instance after stretching.

In contrast to other causes of chylothorax which often require prolonged treatment with a low fat diet and/or surgical repair, the clinical course of described cases is of rapid resolution, though further episodes may occur.

Figure 1: Coronal CT neck with contrast, showing diffuse inflammatory fat stranding in the left neck.

Year	Gender	Age	Following exertion	Neck swelling	Chylothorax	Other episodes
1960 ¹	Female	35	Yes	Left	Bilateral	No
1975 ²	Female	56	Yes	Left	Bilateral	Yes
1984 ³	Female	45	Yes	Left	Bilateral	No
1988 ⁴	Female	67	No	Bilateral	Bilateral	No
2007 ⁵	Female	64	Yes	Left	Bilateral	No
2012 ⁶	Female	40	No	Left	Bilateral	No
2014 ⁷	Female	65	Yes	Bilateral	Bilateral	No
2016 ⁸	Female	48	No	Left	Left	Yes
2017 ⁹	Female	62	Yes	Left	Bilateral	No
2018	Female	36	No	Left	Bilateral	Yes

Table 1: Reported cases of spontaneous simultaneous neck swelling and chylothorax.

Conclusions

Although rare, the clinician should be alert to the possibility of spontaneous chyle leak in a patient presenting with a simultaneous neck swelling and pleural effusion. If other causes have been excluded conservative management is recommended.

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