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REFERENCES

1. **Riker AI**, Vigneswaran WT. Management of tracheobronchial strictures and fistulas: a report and review of literature. *Int Surg* 2002;**87**:114–9.
2. **Lois M**, Noppen M. Bronchopleural fistulas: an overview of the problem with special focus on endoscopic management. *Chest* 2005;**128**:3955–65.
3. **Sakamoto J**, Hasegawa S, Ito S, *et al*. A case of broncho-mediastinal fistula with primary lung cancer. *J Bronchol* 2004;**11**:42–4.
4. **Baydur A**, Kanel G. Tracheobronchomalacia and tracheal hemorrhage in patients with Duchenne muscular dystrophy receiving long-term ventilation with uncuffed tracheostomies. *Chest* 2003;**123**:1307–11.
5. **Dellinger RP**, Savage PJ, Carruth C, *et al*. Tracheocarcinoma fistula secondary to laryngeal carcinoma presenting as massive hemoptysis. *Chest* 1983;**84**:222–4.
6. **Garcia-Olmo D**, Garcia-Arranz M, Herreros LG, *et al*. A phase I clinical trial of the treatment of Crohn's fistula by adipose mesenchymal stem cell transplantation. *Dis Colon Rectum* 2005;**48**:1416–23.
7. **Moghissi K**, Dixon K, Hudson E, *et al*. Endoscopic laser therapy in malignant tracheobronchial obstruction using sequential Nd YAG laser and photodynamic therapy. *Thorax* 1997;**52**:281–3.
8. **Zuk PA**, Zhu M, Mizuno H, *et al*. Multilineage cells from human adipose tissue: implications for cell-based therapies. *Tissue Eng* 2001;**7**:211–28.
9. **Garcia-Olmo D**, Garcia-Arranz M, Garcia LG, *et al*. Autologous stem cell transplantation for treatment of rectovaginal fistula in perianal Crohn's disease: a new cell-based therapy. *Int J Colorectal Dis* 2003;**18**:451–4.
10. **Cowan CM**, Shi YY, Aalami OO, *et al*. Adipose-derived adult stromal cells heal critical-size mouse calvarial defects. *Nat Biotechnol* 2004;**22**:560–7.

Pulmonary puzzle

ANSWER

From the question on p 359

After much discussion at the lung cancer multidisciplinary team meeting, the question was jokingly asked “what is he putting down his tracheostomy?” It transpired that the patient suffered with a dry throat from his tracheostomy. Ten years previously he read in “CLAN” (the newsletter of the National Association of Laryngectomee Clubs) that liquid paraffin would solve this. Every night before he went to bed he lay on his back and his wife put three drops of liquid paraffin down his tracheostomy. He went on to explain that he was now getting the paraffin directly from the manufacturer as they had stopped supplying it for medical use some years earlier.

The histology was reviewed confirming a diagnosis of exogenous lipid pneumonia. He was immediately advised to stop using the paraffin. On follow-up his cough gradually resolved but his chest radiograph remained unchanged. Due to a lack of established treatment options for his condition and his significant co-morbidity, further intervention was deemed inappropriate.

Exogenous lipid pneumonia results from the inhalation of oil-based substances. Mineral oil depresses the cough reflex favouring aspiration and causes include oil-based laxatives and nasal drops.¹ Occupational exposure has been described in furniture factories² and steel mills.³ Paraffin-induced lipid pneumonia as an occupational hazard of fire-eaters has also been described,⁴ a condition which has been coined “fire-eater's pneumonia” or “fire-eater's lung”.

Cough, weight loss and dyspnoea are the most common symptoms. Radiological features vary from consolidation to nodules and ground-glass opacities. Treatment consists of removal of the offending substance. The use of corticosteroids and partial resection of the lung have been described.² Whole lung lavage has been used as a treatment for endogenous lipid pneumonia for Niemann-Pick disease⁵ but its use in exogenous cases is yet to be established.

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REFERENCES

1. **Kukafka DS**, Kaplan MA, Criner GJ. A 77-year-old man with a lung mass. *Chest* 1997;**111**:1439–41.
2. **Brown CD**, Hewan-Lowe K, Kseibi SA, *et al*. Exogenous lipid pneumonia secondary to an occupational exposure in a furniture factory. *Chest* 2004;**126**:997S.
3. **Cullen MR**, Balmes JR, Robins JM, *et al*. Lipid pneumonia caused by oil mist exposure from a steel rolling tandem mill. *Am J Ind Med* 1981;**2**:51–8.
4. **Brander PE**, Taskinen E, Stenius-Aarniala B. Fire-eater's lung. *Eur Respir J* 1992;**5**:112–4.
5. **Nicholson AG**, Wells AU, Hooper J, *et al*. Successful treatment of endogenous lipid pneumonia due to Niemann-Pick type b disease with whole-lung lavage. *Am J Respir Crit Care Med* 2002;**165**:128–31.