

## **PRESS RELEASE**

### **THORAX**

#### **Doctors identify potential 'bagpipe lung' hazard for wind instrument players**

*Moist interiors may foster growth of fungi/moulds linked to inflammatory lung disease*

Doctors writing in the journal **Thorax** have warned musicians who play wind instruments of a potential hazard they have dubbed 'bagpipe lung.'

The warning comes after a man died of the chronic inflammatory lung condition hypersensitivity pneumonitis—thought to have been caused by regularly breathing in mould and fungi lurking inside the moist interior of a set of bagpipes.

Hypersensitivity pneumonitis is triggered by the immune system's response to an inhaled environmental antigen and can progress to disabling or fatal lung disease. It is often associated with occupational exposure to birds, particularly pigeons. But in a significant proportion of cases, it's not always clear what has triggered it.

The doctors describe the case of a 61 year old man who in 2014 had had a dry cough and progressive breathlessness, despite treatment with immunosuppressant drugs, for seven years. His condition had worsened to the point that he couldn't walk more than 20 metres, and was finding it hard to breathe, prompting admission to hospital.

He had been diagnosed with hypersensitivity pneumonitis in 2009, although the cause had not been identified: he was not a pigeon fancier, nor did his house harbour mould or show signs of water damage. And he had never smoked.

But he played the bagpipes daily as a hobby, and didn't take them with him on a three month trip to Australia in 2011, during which time his symptoms rapidly improved.

This prompted samples to be taken for testing from several areas inside the bagpipes, including the bag, the neck, and the chanter reed protector.

The samples grew various different fungi, including *Paecilomyces variotti*, *Fusarium oxysporum*, *Penicillium* species, *Rhodotorula mucilaginosa*, *Trichosporon mucoides* and *Exophiala dermatitidis*.

Despite treatment, the man died: a post mortem examination revealed extensive lung damage consistent with acute respiratory distress syndrome and tissue fibrosis (scarring).

This is an isolated case, and the cause of the man's condition was not definitively proved. But there have been other reported cases of hypersensitivity pneumonitis, arising in trombone and saxophone players, say the doctors.

"This is the first case report identifying fungal exposure, from a bagpipe player, as a potential trigger for the development of [hypersensitivity pneumonitis]," they write.

“The clinical history of daily bagpipe playing, coupled with marked symptomatic improvement when this exposure was removed, and the identification of multiple potential precipitating antigens isolated from the bagpipes, make this the likely cause,” they conclude.

They warn that any type of wind instrument could be contaminated with yeasts and moulds, making players susceptible to the risk of hypersensitivity pneumonitis.

Although there isn't any guidance on the optimal hygiene regimen, cleaning instruments immediately after use and allowing them to drip dry could theoretically curb the risk of microbe growth, they suggest.

But both doctors and musicians need to be aware of this potential hazard and the importance of good instrument hygiene, they conclude.

**Case report:** Bagpipe lung: a new type of interstitial lung disease? Doi 10.1136/thoraxjnl-2016-208751

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