

A CASE OF CUTANEOUS BRONCHOGENIC CYST IN THE SCAPULAR AREA

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Cutaneous bronchogenic anomalies are rare. We report a 4-year-old boy who presented with a tumour and relapsing infection in the right scapular region. Histopathological examination of this tumour revealed a subcutaneous cystic lesion formed by ciliated columnar epithelium with smooth muscle bundles and squamous epithelium with sebaceous glands.

Key words: cutaneous bronchogenic cyst, scapular area.

Introduction

Bronchogenic cysts originate from the primitive tracheobronchial tree and are primarily located in the thorax [1, 2]. Cutaneous bronchogenic cysts are not common lesions which are often diagnosed histopathologically [3-11]. Especially, there are rare reports regarding cutaneous bronchogenic cyst in the scapular location [1-6]. Herein, we report a 4-year-old boy who presented with bronchogenic cyst and relapsing infection in the right scapular region.

Case report

A 4-year-old boy was noted to have a lesion in his right scapular region after 10 months old. The mass caused repeating infection, and required incision and pus discharge several times. The lesion was resected in Tohoku University Hospital, and histopathological analysis was performed. The mass was fragile and appeared grey to brown. The cavity was filled with pus and encircled by a thick fibrous wall.

Histopathological findings

Microscopically, a large cavity was detected in the centre of the specimen. The cyst was lined with respiratory epithelium and partially encircled by smooth

muscle bundles (Fig. 1A) or squamous epithelium with sebaceous glands (Fig. 1B). Foci of haemorrhage, inflammation and fibrosis were also detected in this cavity wall (Fig. 1C). The tumour was histopathologically diagnosed as a cutaneous bronchogenic cyst.

Discussion

Cutaneous bronchogenic cysts are rare lesions that are mostly seen in children, and the most common location of these lesions are the suprasternal notch, presternal area, neck and scapula [3, 7].

It is postulated that bronchogenic cysts are originally derived from outside of the thorax after sternal closure, and migrate to the cutaneous region [3]. On the other hand, it is also suggested that the cyst simply pinches off from the developing tracheal bud during closure of the mesenchymal plates [3, 8, 9]. However, the exact mechanism still remains unclear.

The pathological diagnosis is performed by demonstrating one or more tracheobronchial structures in the cyst wall [3]. In most cases, hyaline cartilage, smooth muscle cells, elastic fibres, fibrous tissues, neural cells and seromucous glands are microscopically detectable [3, 8, 10]. The surface epithelium is usually ciliated pseudostratified columnar or cuboidal cells; however, these structures may

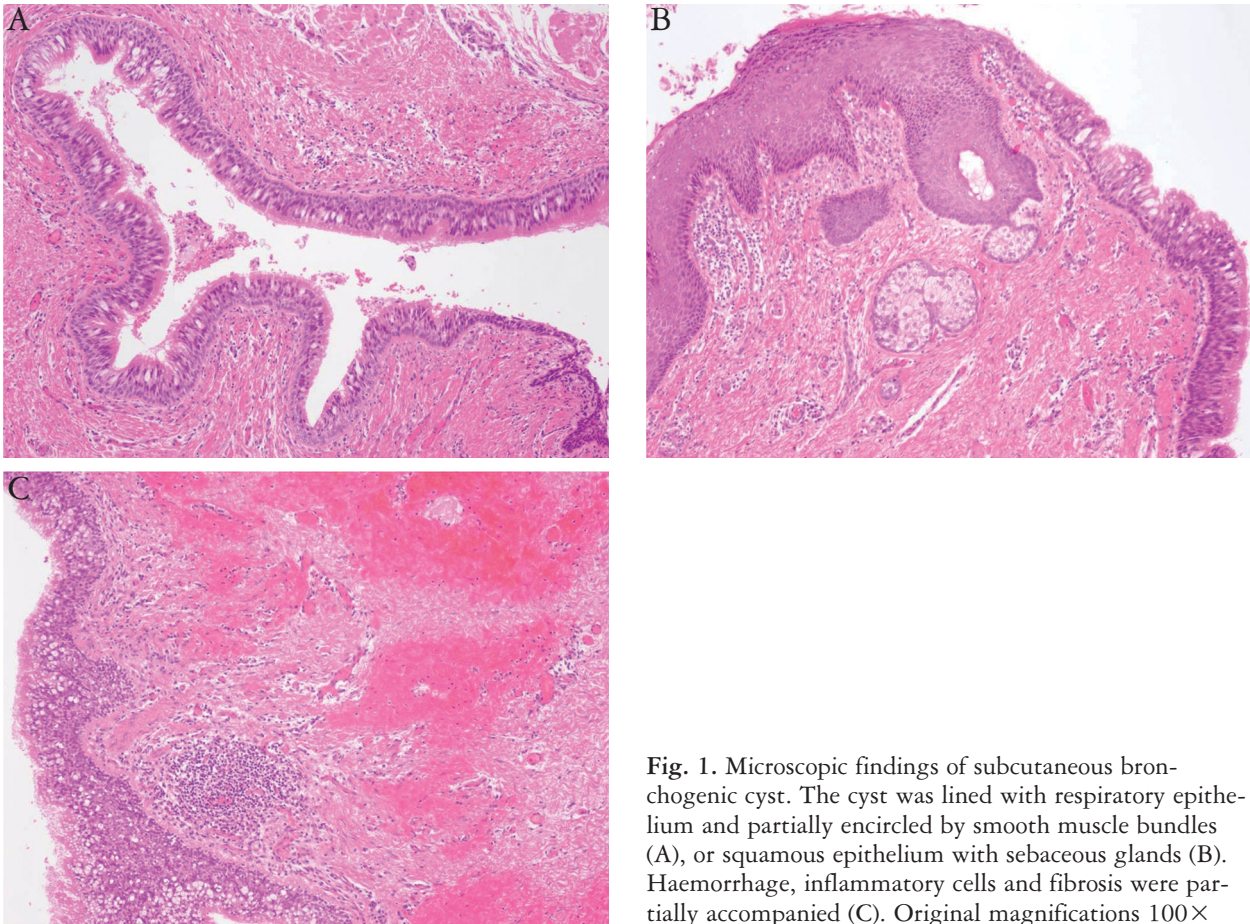


Fig. 1. Microscopic findings of subcutaneous bronchogenic cyst. The cyst was lined with respiratory epithelium and partially encircled by smooth muscle bundles (A), or squamous epithelium with sebaceous glands (B). Haemorrhage, inflammatory cells and fibrosis were partially accompanied (C). Original magnifications 100×

be changed in conditions of chronic infections and fibrosis [3, 10]. Stratified squamous epithelium can be seen in 2% of cutaneous bronchogenic cysts [3, 7]. In addition, some rare cases may show sebaceous glands [6, 11]. Based on these findings, our case was histopathologically diagnosed as a cutaneous bronchogenic cyst in the scapular area.

In conclusion, the possibility of bronchogenic cysts should be kept in mind while dealing with superficial scapular skin lesions in children.

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