

## Brief Note

### Epithelial Cyst of the Adrenal Gland

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**Key words :** adrenal gland — cyst — epithelial cyst

Cysts of the adrenal gland are rare clinical and pathological entities, and only about 300 cases have been reported.<sup>1)</sup> Most of them are small and encountered as an incidental finding at autopsy. Wahl<sup>2)</sup> found an incidence of 0.06% in a series of 13,996 autopsies. Larger ones may present as mass lesions associated with lumbar pain and come to the attention of the surgeon. Traditionally, cysts have been classified as (1) parasitic, (2) epithelial, (3) endothelial, and (4) pseudocyst (organized hematoma) (Table 1).<sup>3)</sup> The most common histologic types are lymphangiomatous endothelial cysts and the hemorrhagic pseudocysts. Parasitic and epithelial cysts are vanishingly rare.

Herein reported is a true epithelial cyst of the left adrenal gland, incidentally found in a 72-year-old man who died of pneumonia, left thoracic empyema and septic shock. A cyst was present in the tail portion of the gland and measured 2.5×2.0×2.0 cm in diameter (Fig. 1). It contained amber-colored fluid which became gelatinous when fixed in formalin (Fig. 2). Histologically, the cyst was located within the cortex, compressing the outer portion of the cortex to be thinned. It was lined by low columnar epithelia with some resemblance to those of müllerian origin for the most part (Fig. 3) and by plump cuboidal epithelial cells in part. No ciliated cells were present. It could be identified as the epithelium by the positivity with anti-keratin antibodies and by the negativity with anti-factor VIII antibodies when they are applied. A thin band of fibrous connective tissue intervened between the cyst and the adrenal cortical cells.

Epithelial cysts are an uncommon variety of adrenal cysts. Foster<sup>3)</sup> divided them into three subgroups: (a) true glandular or retention cysts, (b) embryonal cysts and (c) cystic adenoma. Cysts of the first subtype, lined by adrenocortical

TABLE 1. Classification of adrenal cysts

Parasitic cysts
Epithelial cysts
True glandular (retention) cysts
Embryonal cysts
Cystic adenomas
Endothelial cysts
Lymphangiomatous cysts
Angiomatous cysts
Pseudocysts
Hemorrhage within normal adrenal tissue
Hemorrhage within adrenal tumors

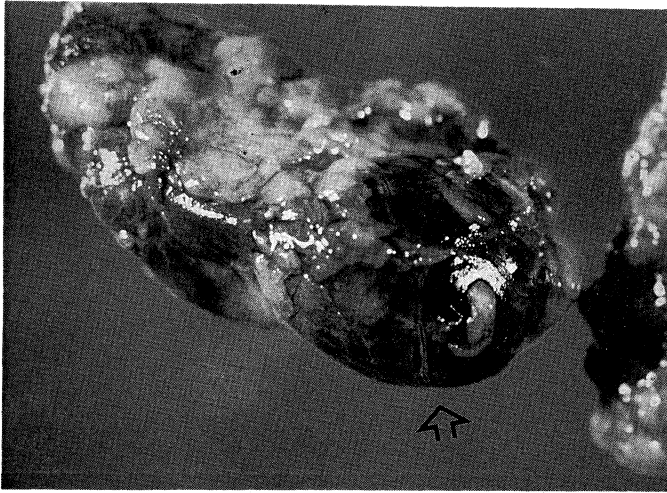


Fig. 1. An adrenal cyst (arrow).



Fig. 2. A cut surface of the adrenal showing a cyst on the right.

cells, are considered to be a result of distension by their secretion. Some authors doubt their existence in humans. The relatively common presence of microscopic cysts in the cortices of infants is of unknown significance in relation to the epithelial cysts in the adults.<sup>9)</sup> Cystic adenoma is the most common among this group of adrenal cysts. In our case, however, there was no evidence of adenoma within and adjacent to the cyst, or anywhere in the adrenal. The present case corresponds to the cyst of embryonal type, which is caused by embryonic malformation or inclusion in the adrenal gland of displaced tissue from urogenital anlage with cystic transformation. Lastly, it should be noted that this was the first case of adrenal cyst encountered in our institute with 2034 autopsied cases.

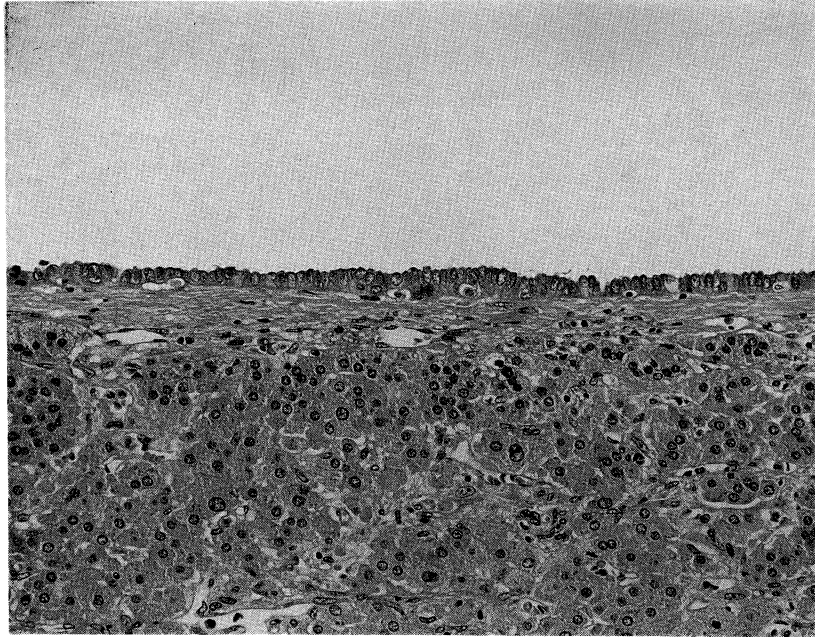


Fig. 3. The cyst is a true epithelial cyst lined by a low columnar epithelium, like seen here and a cuboidal epithelium (not shown in this photomicrograph). (H-E,  $\times 250$ ).

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