[PICTURES IN CLINICAL MEDICINE]

Isolated Right Ventricular Apical Hypertrophy

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Picture 1.

Picture 2.

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Picture 3.

Picture 4.

A 38-year-old woman with an unremarkable appearance was referred to our hospital for the further evaluation of heart murmur. Her father had a history of cardiac arrest. An electrocardiogram showed a deep S-wave in the left precordial leads (Picture 1). Echocardiography revealed focal hypertrophy of the right ventricular (RV) apex, almost obliterating the apex (Picture 2a). Furthermore, this protruded structure had partially infiltrated the RV outflow tract and caused mild obstruction (Picture 2b). There was no concomitant left ventricular hypertrophy. Cardiac magnetic resonance imaging also showed focal hypertrophy of the RV apex, the signal intensity of which was similar to that of normal myocardium (Picture 3). The histological findings of

hematoxylin-eosin staining obtained from the RV apex showed almost normal myocardium (Picture 4). In conclusion, we experienced a very rare case of isolated RV apical hypertrophy and mild obstruction in the RV outflow tract without involvement of the left ventricle that caused heart murmur.

The authors state that they have no Conflict of Interest (COI).

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