INTRODUCTION

The variations in the gross anatomy of the stapedius muscle and its relation to the facial nerve canal are important for surgical considerations. The stapedius muscle is a small, triangular-shaped muscle located in the middle ear, and its exact position and course vary significantly among individuals. The muscle has three main components: the tendon, the muscle belly, and the insertion into the stapes.

The muscle belly is attached to the posterior canal wall, and its fibers run distally and posteriorly to insert into the stapes. The tendon, which is composed of collagen fibers, is responsible for the muscle's contractile activity. The stapedius muscle plays a crucial role in the regulation of middle ear pressure and is essential for hearing.

METHODS

This study aimed to provide a more detailed understanding of the variations in the gross anatomical features of the stapedius muscle and its relation to the surrounding structures, specifically the facial nerve canal and various retrotympanic recesses. In addition, we will try to explain these variations from a development standpoint.

RESULTS

The variations in the gross morphology of the stapedius muscle, its relations to the surrounding structures and the patterns of its pneumatization and development of the middle ear are crucial for surgical considerations. These variations are essential for understanding the surgical anatomy of the middle ear and can significantly influence surgical outcomes.

The variations in the gross morphology of the stapedius muscle, its relations to the surrounding structures and the patterns of its pneumatization and development of the middle ear are crucial for surgical considerations. These variations are essential for understanding the surgical anatomy of the middle ear and can significantly influence surgical outcomes.