

## **Anatomy of the tendinous cords of the interventricular septum of the human heart.**

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### SUMMARY

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There are frequent citations in the literature stating that lesions of the tendinous cords cause functional disorders of the heart valves. This led us to conduct the present investigation on the anatomy of the tendinous cords. Our objective was to focus on the morphological characteristics of tendinous cords that are inserted directly into the interventricular septum, such as their frequency, number, dimensions and This study was conducted on 50 hearts from adults of both sexes that had been fixed in 10% formaldehyde. The right ventricle was opened by means of an incision parallel to the anterior interventricular groove, and the left ventricle was opened by means of a longitudinal incision in the middle of the pulmonary (left) surface.

Our results showed that, in the right ventricle, these tendinous cords constantly appeared without the involvement of papillary muscles (98%). They ranged in number from one to ten, and between two and five was the most common (72%). They were short, mostly ranging from 0.3 to 1.9 cm in length (81.5%) and were preferentially located in the upper third of the interventricular septum (71.4%). They were usually attached to the septal cusp (76.7%) and sometimes to the anterior cusp (21.3%). The cusp insertion sites were the free edge (62%), ventricular surface (32%) and basal edge (6%). It was exceptional to find tendinous cords in the ventricular septum of the left ventricle.

Tendinous cords directly inserted into the atrioventricular septum were constantly present in the right ventricle, with varying numbers. They were predominantly short because they were inserted into the upper third of the septum and most often headed towards the septal cusp. It was exception to find tendinous cords in the atrioventricular septum of the left ventricle.