

Conference Abstract

DAY 1 15th September 2023 (Friday)

ORAL 2

3.30-5.00 pm

Scientific Session 9

Aortic Knuckle and its contribution to left cardiac outline: A radiographic study**Sunil O, Balachandra N**

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Background: The chest radiograph is an important method of chest imaging, providing an easily accessible, cheap, and effective diagnostic tool. Aortic knuckle is an important finding in chest radiograph. Aortic knuckle enlargement suggests underlying cardiovascular comorbidity including hypertension.

Aims and objectives: To analyze the contribution of aortic knuckle to left cardiac outline in a general population of various age groups

Materials and methods: Postero-anterior (PA) chest radiographs of 648 individuals between the ages of 18 to 75 years were evaluated. Curved length of aortic knuckle (AKC) and total length of left cardiac outline (LCOT) were studied and contribution of aortic knuckle to left cardiac outline in a general population of various age groups. Statistical analysis was carried out with the help of IBM-SPSS (IBM Corporation) and Microsoft Excel.

Results and Conclusion: Curved length of aortic knuckle (AKC) and total length of left cardiac outline (LCOT) were analyzed to compare normal population with those with cardiovascular co-morbidity. The contribution of aortic knuckle to left cardiac outline showed a gradual increase in the contribution ranging from 17.8% in age group 17-25 years and 23.4% in age group 61-75 years. Further the contribution was 18.4% in normal population and 25.5% in co-morbid patients. Thus, simple measurement of aortic knob in PA chest x-ray may help in predicting cardiovascular disorder.

Keywords: aortic knuckle, comorbid, hypertension