

## **Differences in Accessory Pathway Location by Sex**

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**Background:** Recent studies have shown that the pathogenesis of accessory pathway (AP) formation may have a genetic component.

**Objective:** The purpose of the study was to examine whether AP location differs by sex in a large cohort of patients with AP undergoing radiofrequency ablation (RFA) in two electrophysiology (EP) laboratories.

**Methods:** All consecutive patients who underwent RFA of single AP's in Tel-Aviv Sourasky Medical Center between 1992 and 2009 (n= 574) as well as the first consecutive 230 patients who underwent RFA of single AP's in Sheba Medical Center between 1992 and 2001 were included in this study. The 804 patients in the two centers included 511 males (63.6%) and 293 (36.4%) females, mean age 34 + 16 years old. Of these 804 patients, 731 (91.3%) were Jewish and 73 (9.7%) were non-Jewish (mostly Muslim). The AP was located in the left free wall, posteroseptal, right free wall, right anteroseptal and in other various areas in 57.8%, 22.8%, 9.3%, 7% and 3.1% of patients, respectively. The anatomical AP distribution was similar in the two EP laboratories. A right free wall location was more frequent in females (13%) than in males (7.2%) (p=0.008). A right anteroseptal location was more frequent in males (8.4%) than in females (4.4%) (p=0.043). The left free wall and posteroseptal locations were similarly encountered in males (58.1% and 23.1%, respectively) and in females (57.3% and 22.2%, respectively).

**Conclusions:** In our Israeli population, females more commonly have right free wall AP's and males more commonly have right anteroseptal AP's. These findings suggest that the pathogenesis of AP formation may have a genetic component.