Previous authors dealt mainly surgical descriptions of papillary muscle morphology in the literature. Afterwards, with the effectiveness of open heart surgery, more knowledge of the mitral valve was gathered by countless authors. Papillary muscles were bifid, trifid, conical, mammillated, flat topped, grooved, stepped, wavy, arched, sloped or saucerized. When there were two bellies they presented a two tiered, interlinked, parallel, arched, V, Y, or H configuration. This study was performed with permission from National Forensic Institute on specimens harvested by the classical autopsies was performed in Morgue Specialization Department, Ankara Institute of Forensic Medicine. We encountered with two different cases during the investigation on the sixty human heart between the ages of 16-44. The first case was unclassified specimens such as multi-headed. The other case was dentate-based papillary muscle. In conclusion this study differs from previous studies according to show pictures of all types of papillary muscle patterns. These datas will be helpfull for relevant cardiac surgeon performing mitral valve homograft implantation.

**Keywords:** Left ventricle, papillary muscle, chordae tendineae, subvalvular apparatus, mitral valve, homograft implantation