"Known Depth-of-Cut" Cylindrical Knife

Published date: May 30, 2018

Technology description

Invention
This technology is asurgical knife that is designed to cut at a certain depth during septal myectomy procedures. The knife is available in two different configurations, both of which make it easier for the surgeon to perform the septal myectomy procedure and increase patient safety during the procedure.
Background
Approximately 700,000 people in the US are affected by hypertrophic cardiomyopathy, a heart disease that causes thickening of the heart muscle, particularly the septum. To reduce the thickening of the septal muscle, surgeons often perform a septal myectomy. While this is a very technically demanding procedure, a higher procedural mortality rate is seen in surgical centers where this procedure is not performed in high volume.

Application area

Septal myectomy

Advantages

Prevents surgeons from removing or cutting too much of the septal wall during the procedure
Increases patient safety
May allow less experienced surgeons to perform this procedure while keeping procedural mortality low

Institution

University of Arizona

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