Mechanical gun-type circumcision device with glans protection system for safe cutting and cauterization of the foreskin.

KEYWORDS

- ❑ CIRCUMCISION
- ❑ PHIMOSIS
- ❑ PEDIATRIC SURGERY
- ❑ ANDROLOGICAL SURGERY
- ❑ PLASTIC SURGERY
- ❑ RITUAL CIRCUMCISION

AREA

- ❑ BIOMEDICAL

CONTACTS

➢ PHONE NUMBERS
+39.06.49910888
+39.06.49910855

➢ EMAIL
u_brevetti@uniroma1.it

Priority Number
n. 102015000014334 _ 08.05.2015.

Patent Type
Patent for invention.

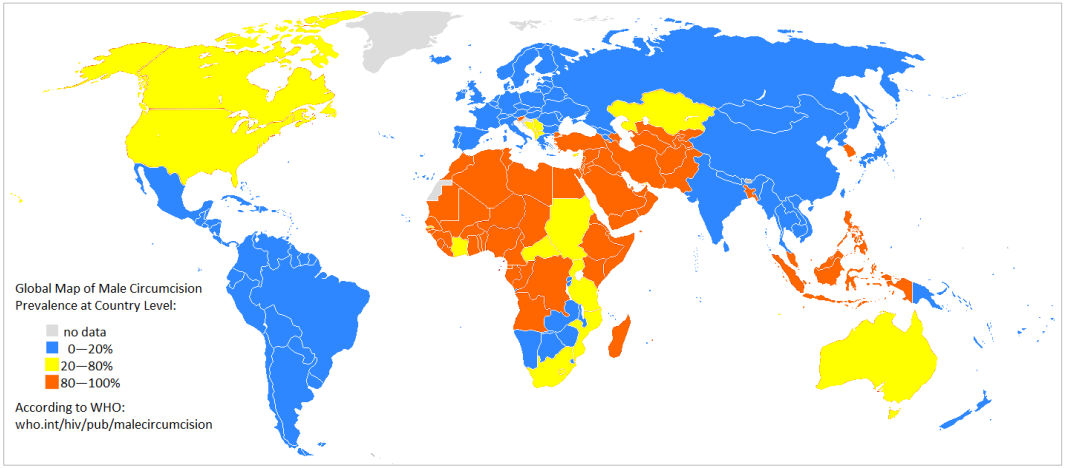
Ownership
Sapienza University of Rome 100%.

Inventors
Monir Al Mansour.

Industrial & Commercial Reference
Biomedical device to be used hospital and extra-hospital, in particular in the sector of general surgery, pediatric surgery and urology.

Time to Market
Six months to develop the prototype, for its registration and certification.

Availability
Cession and Licensing.



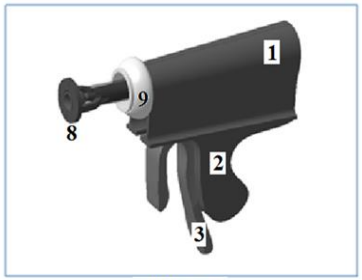


Table 1A

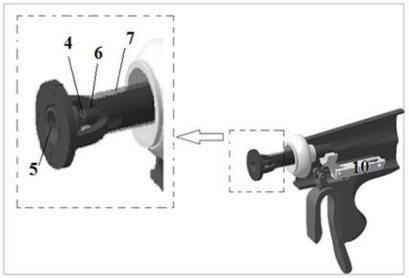


Table 1B

Abstract
The present invention relates to a mechanism adapted to perform circumcisions in a mechanical way, without or with the aid of various equipment or electrical supply.

The device allows an improvement of the tools previously used to perform circumcision. It is characterized by perfect symmetry of the cut, rapidity in execution, less bleeding, increased prevalence without needing to use stitches.

Possibility of wide diffusion throughout the Arab, Hebrew and Coptic Christian world.

Mechanical gun-type circumcision device with glans protection system for safe cutting and cauterization of the foreskin.

Technical Description

The present invention relates to a mechanism adapted to perform circumcisions in a mechanical way, without the aid of various equipment or electrical supply.

The mechanism is composed of:

- appropriately shaped gun in plastic material (1-Tab.1A);
- a handle (2-Tab.1A) and a handgun trigger (3-Tab.1A);
- one fixed stem (4-Tab.1B), connected to the central pin of the gun, that holds a bell protective of the glans and which also acts as silhouette of shearing;
- silhouette of shearing bell-shaped (5-Tab.1B), integral with the stem;
- two cannulas of medical steel, concentrics, of which a fixed inner (6-Tab.1B), integral with the silhouette of shearing bell-shaped and an external unit (7-Tab.1B).
- two blades (8-Tab.1A) in the biomedical titanium or steel, properly shaped and connected to the outer cannula;
- a wheel (9) for the rotation of the gun about its longitudinal axis.
- a mechanism that converts the angular motion of the trigger in the longitudinal motion of the cannula (10-Tab.1B).

The two blades are shaped so as to cut in perfectly circular shape the excess skin of the foreskin and to compress in a given area, the two flaps of skin, inside and outside of the foreskin.

Table 2A

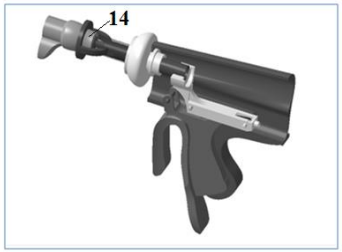


Table 3A

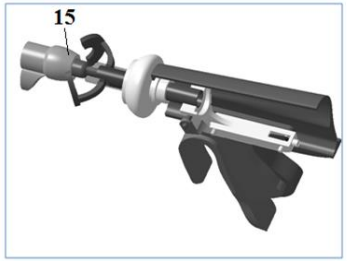


Table 3B

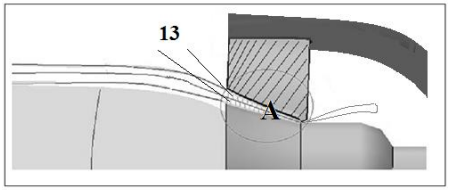


Table 4A

Therefore, the shape of the silhouette of shearing and of the blades is such as to simultaneously perform a circumferential cutting, a cut in the area of contact of the two blades and a cauterization of tissue compressed.

Technologies & Advantages

The strengths of the device are as follows: mini-invasive surgery with a less risk of bleeding and less need for suturing; easy and fast execution with reduction of the intervention time (about 10 minutes) and consequent anesthesia; symmetry of the cut and secure protection of the glans.

The gun can be powered by radiofrequency or ultrasound sources to make a section and closure without sutures.

Applications

The device finds application in urology for phimosis, pediatric surgery for phimosis and ritual surgery, andrology in case of penile malformations

The geographical areas of interest are those of Southeast Asia, the Middle East and all countries with Muslim, Jewish and Coptic Christian faiths.

CONTACTS

➢ PHONE NUMBERS
+39.06.49910888
+39.06.49910855

➢ EMAIL
u_brevetti@uniroma1.it

SAPIENZA
UNIVERSITÀ DI ROMA

ASuRTT _ UFFICIO VALORIZZAZIONE E TRASFERIMENTO TECNOLOGICO
SETTORE BREVETTI E TRASFERIMENTO TECNOLOGICO
➢ http://uniroma1.it/ricerca/brevetti