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**DISPOSABLE CIRCUMCISION INSTRUMENT SET****Technical Field of the Invention**

This invention relates to a disposable instrument set for circumcision.

**Background of the Invention**

Circumcision involves surgical removal of the foreskin or prepuce of the penis (hereinafter referred to the "male organ"). Although it is a minor operation it still too often becomes time-consuming and bloody.

The common practice in carrying out circumcision is to use surgical scissors to cut the foreskin. The trimming obtain is usually not only crude and rough but also causes bleeding and needs sutures to be applied to the cut edges. Generally, sterilised gauze and dressing are also applied and sometimes antibiotics may have to be prescribed to prevent infection. Also, undue or unusual loss of the tissue due to simple excessive excision, resulting in some pain to the person undergoing such procedure.

**Discussion of Prior Art**

In the prior art, there is a number of instruments known for performing circumcision operations. For practical purposes, many are complex to operate and have an undesirably large number of parts, which either are detached from each other or need several auxiliary instruments in operation.

A number of such instruments involve clamping. This is attained by tightening a clamp at the desired position on the prepuce by a screw mechanism. In such screw devices the screw has to be manipulated or turned gradually until circumcision of the foreskin has been achieved. This, therefore, does not achieve a "neat cut" at the site of clamping. Also, soon after the circumcision has been performed, the clamp has to be dismantled and removed. The exposed cut edges generally need to be sutured, treated dressing has to be applied. The wound has to be closely watched for infection, bleeding and oozing for the next few days.

Another recent device involves a disposable clamp with two arms. The circumcision is attained by pulling two arms of the disposable clamp together, applying pressure at the desired position on the foreskin until the arms are locked and the cutting of the foreskin achieved.

**Problem to be solved by the present invention**

The present invention is designed to allow for easier fitting and handling of the circumcision instrument set on the male organ. Once the foreskin is held in place over the circular rim of the tube, and held with one hand, the other components of the instrument set, being the organizer and collar can be easily fitted on easily and locked in place by the other hand. A second locking device can then be lastly fitted on and the second locking device is tightened by turning by the other hand. This forces the rim of the tube and the cutting edge of an organizer to meet each other precisely, resulting in a scissor-like cutting force on the foreskin held in between. This produces a complete and nice round cut to the foreskin. As a result, minimal pain is felt and there is hardly any lingering pain after the circumcision has been performed.



\*ACTION\*

The instrument is of a simple design and is made of non-toxic plastic resin. It is pre-sterilised and is individually packed in a sterile packing. It is meant for single use only and is entirely disposed of after use.

### **Objects of the Invention**

According to an aspect of the invention, there is provided a device which is easy and fast to fit onto the glans penis of the male organ, the components easily and readily locked into each other, enabling a second locking device to be placed to bring about a scissor-like cutting action to cut off the foreskin. In this manner, an efficient and quick and complete and nice round cut of the foreskin is achieved.

According to another aspect of the inventions, the device allows for complete disposal of the tool after use so that there is no danger of contamination or infections being passed arising from re-use of the same circumcision tool.

According to a third aspect of the invention, the device allows for a relatively fast, efficient, safe, clean, aseptic and almost painless circumcision.

According to a fourth aspect of the invention, the device is of a simple design so that it can be fitted and handled by both hands of a single person with minimal effort and in four simple steps.

According to a fifth aspect of the invention, the device is made of non-toxic plastic resin so that it is safe for use on sensitive parts of the human body.

### **Brief Description of Drawings**

The invention would be better understood with reference to the drawings, and the following description, in which:-

Fig. 1 (a) to Fig 1 (d) is a perspective view of the components of the circumcision set of the present invention.

Fig. 1(a) is a perspective view of the tube.

Fig. 1(b) is a perspective view of the organiser.

Fig. 1(c) is a perspective view of the locking collar.

Fig. 1(d) is a perspective view of the locking device.

Fig. 2 is a perspective view of the components lined in sequence from left to right and before fitted together in the circumcision set of the present invention.

Fig. 3 (a) to Fig. 3 (d) shows the stages in circumcision using the components in the circumcision set of the present invention.

Fig. 4 shows a side view of the circumcision set of the present invention when fitted together.

### **Brief Description of the Preferred Embodiment**

Fig. 1 (a) to Fig. 1 (d) shows the components before assembly and fitting.

Fig. 1(a) is a perspective view of an elongate hollow tube having a body 10. At the front is a circular opening 11 ending in an upwardly extending circular rim which acts as a cutting edge 12. Connected by the body 10, the back of the tube 13 consists of circular threads 14.

Fig. 1(b) is a perspective view of the organiser consisting of an circular front opening 20 and a circular back opening 21 with connecting supports 23. The circular front opening has a circular cutting edge facing outward 22. At the back of the tube is a circular back opening with circular rim 24 with an abutment 25. The organiser has supports 23 connecting the front circular opening 20 to the circular back opening 21.

Fig. 1(c) is a perspective view of the locking collar consisting of two circular rims 31, 32 at the front opening in its center 30. The back of the locking collar 35 is a circular rim 33 with a slot 34.

Fig. 1(d) is a perspective view of the locking device. It is a number of knobs 41 with a front opening in its center 40. The inside of the collar has circular threads 42.

Referring to Fig. 2, the components are lined in sequence from left to right and before being fitting together in the circumcision set of the present invention.

Referring to Fig. 3(a), the circular opening 11 of the tube is firstly fitted over the glans penis of the male organ with the foreskin folded away from the glans penis.

Fig. 3(b) shows that once the circular opening 11 of the tube is fitted over the glans penis, the portion of the foreskin to be circumcised is then pushed up to enfold the upwardly extending circular rim 12.

Fig. 3(c) shows the next step. Once the circular opening 11 of the tube is fitted over the glans penis, and foreskin enfolds the upwardly extending circular rim 12, the organiser is slidably fitted into the tube. The organiser with the front opening 20 is slid through the tube until the front of the organiser meets the upwardly extending circular rim 12. This is when the circular cutting edge of the organiser 22 meets the upwardly extending circular rim 12 of the tube. These cutting edges meet each other precisely, holding the foreskin to be circumcised in place and ready for the circumcision. At the other end, the circular back opening 21 of the organiser is aligned with the back of the tube 13. The front opening 30 of the collar is then fitted into the circular back opening of the organizer, with circular rims 31, 32 fitting into the back 13 of the tube and circular rim 24 of the organiser.

The collar, tube and organiser are locked in place when the slot 34 is engaged with the abutment 25 of the organiser. When the collar, tube and organiser are locked in place, the part of foreskin to be circumcised is held securely in place for the act of circumcision. At this stage, the collar, tube and organiser can be held by one hand so as to enable the fitting of the locking device by the other hand.

Fig. 3 (d) is the final stage of completion of fitting of all the components of the circumcision instrument set onto the male organ and the beginning of the act of circumcision.

Referring to Fig. 3 (d), while one hand is holding the combined organiser, tube and the locking collar, the other hand can now fit the locking device onto the combined components. The other hand is also free to turn the circular threads 42 of the locking device into the circular threads 14 of the back of the tube 13. When the locking device is tightened against the combined organiser, tube and locking collar, the locking device exerts pressure on the back of the collar 35 and the circular back opening with circular rim 24 of the organiser. The pressure then pushes the circular cutting edge 22 of the organiser to meet precisely the upwardly extending circular rim of the tube which also acts as a cutting edge 12.

As the locking device tightens, pressure from the locking device continues to exert on the collar on the back rim of the organiser **24** and the back of the tube **13**. This pressure pushes the circular cutting edge **22** and upwardly extending circular rim of the tube **12** towards each other in a scissor-like cutting action to cut off the foreskin. In this manner, a complete and nice round cut of the foreskin is achieved.

When the cut has been achieved, the components are disassembled and disposed.

Fig. 4 shows the components being fitted together but not in use.

The tube, organiser, locking collar and locking device described herein is exemplary of the invention and can be modified as required and such modifications are within the scope of the description and claims.

## Claims

### 1. A disposable circumcision instrument set comprising:-

- an elongate hollow tube having an front end and back end;
- an organiser having a circular front opening and a circular back opening;
- a locking collar; and
- a locking device

wherein the elongate hollow tube is slidably fitted into the organiser, the locking collar fitted into the back end of the elongate hollow tube and the circular back opening of the organiser, locking the elongate tube and organiser in place to enable the locking device to be turned to perform the circumcision.

2. A disposable circumcision instrument set as claimed in Claim 1 characterised in that the front end of the elongate hollow tube has an upwardly extending circular rim, which acts as a cutting edge.

3. A disposable circumcision instrument set as claimed in Claim 1 characterised in that the organiser has a circular front opening with a circular cutting edge facing outwards.

4. A disposable circumcision instrument set as claimed in Claim 1 characterised in that the back end of the elongate hollow tube has a number of threads for engagement with the locking device.

5. A disposable circumcision instrument set as claimed in Claim 1 characterised in that the organiser has a circular back opening with a circular rim for engagement with the locking collar.

6. An organiser in a disposable circumcision instrument set as claimed in Claim 5 characterised by an abutment at the circular back opening of the organiser.

7. An organiser of a disposable circumcision instrument set as claimed in Claim 5 characterised by two or more abutments at the circular back opening of the organiser.

8. A disposable circumcision instrument set as claimed in Claim 1 characterised in that the locking collar has two circular rims at the front with a front opening in its center, the first circular rim for engagement with the circular rim of the organiser and the second circular rim for engagement with the back end of the tube.

9. A locking collar in a disposable circumcision instrument set as claimed in Claim 8 characterised in that the locking collar has a slot to engage the abutment of the organiser, locking the tube and organiser to enable fitting of the locking device to perform the act of circumcision.

10. A locking collar in a disposable circumcision instrument set as claimed in Claim 9 characterised in that the locking collar has more than one slot to engage an equal number of corresponding abutments in the organiser, locking the tube and organiser to enable fitting of the locking device to perform the act of circumcision.

11. A disposable circumcision instrument set as claimed any one of the preceding claims wherein the elongate hollow tube is slidably fitted into the organiser, the collar is fitted into the back end of the tube and the circular back opening of the organizer, said tube and organiser locked by engagement of the slot and abutment, characterized by the locking device being threadingly turned into the circular threads at the back of the tube, bringing the circular cutting edge of the organiser and upwardly extending circular rim of the tube towards each other in a scissor-like cutting action to perform the circumcision.

12. A disposable circumcision instrument set as claimed in any one of the preceding Claims wherein the front end of the elongate hollow tube is fitted over the front of the glans of the male organ; the foreskin slid over the front end of the elongate hollow tube until the foreskin covers the upwardly extending circular rim; said elongate hollow tube is slidably fitted into an organiser through the circular front opening; the collar is fitted to both the back end of the elongate hollow tube and the circular back opening of the organiser, said elongate tube, organiser and collar held in place when the slot of the collar and abutment of the organiser are engaged with each other; characterised by:-

the locking device being threadingly turned into the circular threads at the back of the tube, locking the instrument set;

when the said locking device is turned tightly, said locking device exerting sufficient force on the tube and organiser, pushing both the inner circular cutting edge of the organiser and upwardly extending circular rim of the tube towards each other in a scissor-like cutting action to cut off the foreskin.

13. A disposable circumcision instrument set as claimed in Claim 1 made of plastic resin.

14. A disposable circumcision instrument set as claimed in Claim 1 made of plastic resin wherein all the components of the set are sterilised and is individually packed in a sterile packing.

15. A disposable circumcision instrument set as claimed in Claim 1 characterised by the tube being made of different diameters for use on children and adults.