## Modified hemorrhoid ligator for multiple hemorrhoid ligations.

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The ligature drum and loading cone of conventional hemorrhoid ligator have been modified for ligating multiple hemorrhoids by a set of rubber bands without reloading. This instrument facilitates multiple hemorrhoid ligation in one session.

อรุณ โรจนสกุล. การคัดแปลงส่วนหัวของเครื่องรัดริดสีควงทวาร เพื่อความสะควกในการรัคริดสีควงทวาร หลายตำแหน่ง. จุฬาลงกรณ์เวชสาร 2532 กรกฎาคม ; 88(7): 557-559

ได้ดัดแปลงส่วนหัวของเครื่องผูกริดสีดวงทวารเพื่อให้ใส่ยางได้ครั้งละ 3 วง และสามารถยิงยางครั้งละ 1 วง และเลื่อนวงต่อไปเพื่อยิงยางวงต่อไปได้จนครบ 3 วง สำหรับริดสีดวงทวาร 3 หัว ทำให้ไม่ต้องเสียเวลาล้างเช็ด และใส่ยางเพื่อผูกริดสีดวงทีละ 1 หัว เช่น เครื่องผูกริดสีดวงทวารที่ใช้กันอยู่ในปัจจุบัน

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Multiple banding of hemorrhoids in one session has been shown to be safe, effective and economical. (1,2) One disadvantage of the conventional ligator however, is the need for either reloading or the use of multiple instruments. Reloading is a time consuming manoeuver because the contaminated ligature drum needs cleaning. Multiple ligators are more conveninet but also cost more. The device which will be described has been designed to overcome these problems.

## **Technique**

The device has two features that differ from other hemorrhoid ligators.

1. **The ligature drum** (Fig. 1) consists of three overlapping cylinders. The outermost cylinder is screwthreaded on the middle cylinder and functions as an

advancing ring for the loaded bands.

2. The loading cone (Fig. 2) slips over the inner cylinder in stead of being inserted into it, thus enabling the rubber bands to be loaded onto the middle cylinder.

For the ligation of three hemorrhoids, two rubber bands are loaded onto the middle cylinder, one at a time. The third band is then loaded onto the inner cylinder, and ready for the first ligature. (Fig. 3)

After ligating the first hemorrhoid, the bands on the middle cylinder are then pushed forward by turning the advancing ring (the outermost cylinder), so that the foremost band is dropped onto the inner cylinder ready for the second ligature. The last band is dealt with in the same manner as the second band, and finally three hemorrhoidal piles have been ligated.

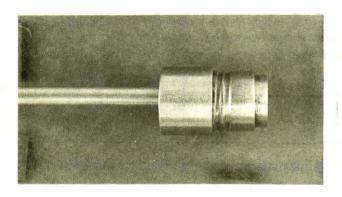


Figure 1. The ligature drum.



Figure 2. The loading cone.

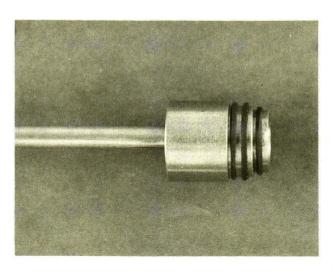


Figure 3. Position of rubber bands, ready for the first ligation.

## References

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