

# Severe Hemorrhoidal Thrombosis After Rubber Band Ligation: Review of the Literature and Case Presentation with Management

- Introduction:

- Hemorrhoids are vascular bundles found in the submucosa of the anal canal.
- A significant proportion of the population have hemorrhoidal disease, but only 4.4 percent complain of symptoms<sup>2</sup>.
- According to the practice parameters for the management set forth by the American Society of Colon and Rectal Surgeons, office based procedures, such as banding, may be safely employed in the management of select grade III hemorrhoids with satisfactory efficacy

- **Case Description:**

- A 63 year-old male presented to the office with repeat complaint of hemorrhoids after failing medical and conservative management. On physical exam anoscopy demonstrated a grade III right posterior internal hemorrhoid.
- The hemorrhoid was banded without difficulty or discomfort.
- The following morning, the patient returned to office with the complaint of severe anal pain not managed with over-the-counter analgesia and a large anal mass. Repeat physical exam showed severe internal and external thrombosis of the right posterior hemorrhoid.
- He was sent to the hospital and underwent urgent hemorrhoidectomy without complication.

- **Methods:**

- Using the PubMed.gov data base, searching from 1965 to 2020, the phrase: Rubber band ligation of hemorrhoids, revealed 309 articles.
- Articles selected for review were based on relevance, English language, and access to the full article. In total, 21 articles were selected for review.

- Results:

- Of the 21 articles that were reviewed, major complications from rubber band ligation were reported in only eight articles.
- This represented a total of 2196 patients, of these only 28 patients in total, had major complications [Table 1].
- The rate of major complication ranged from 0.3%<sup>4</sup> to 2.3%<sup>5</sup>.
- Thrombosed prolapsed hemorrhoids after banding, requiring intervention was identified in only 3 patients, representing a rate of approximately 0.14%.
- Minor thrombosis after RBL were reported in five different studies, ranged from 1.2%<sup>6</sup> in traditional office techniques to 6%<sup>7</sup> in one study that did endoscopic rubber band ligation.
- Overall, complications were found more common with rubber band ligation of the right anterior hemorrhoid, Larger grade, and in patients with previous hemorrhoidectomy<sup>8</sup>

Reported Major Complications			
Study	Complication	Number of patients	Number of patients in study
Brown et al. <sup>7</sup>	Pain	1	187
	Bleeding	1	
Bat et al. <sup>8</sup>	Bleeding	6	512
	Thrombosed	3	
	Sepsis	3	
Kumar et al. <sup>9</sup>	Pain	1	98
Forlini et al. <sup>10</sup>	Pain	2	206
Oueidat et al. <sup>11</sup>	Bleeding	1	148
	Abscess	2	
Jeffery et al. <sup>12</sup>	Bleeding	3	134
Marshman et al. <sup>13</sup>	Bleeding	2	241
	Abscess	1	
Bartizal et al. <sup>14</sup>	Bleeding	2	670

- Discussion:

- Minor complications are frequent, the most common are pain and bleeding.
- Major complications, although not common do occur and patients are higher risk with higher grade hemorrhoid, right anterior location, and previous hemorrhoidectomy.
- Careful patient selection is key to deciding if RBL is appropriate.

- References Upon request

