

# Endoscopic Transanal Resection of Rectal Lesions

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Although radical excision remains the treatment of choice for rectal carcinoma and large rectal polyps, endoscopic transanal resection of such tumours in patients unfit for surgery, as well as for those fit patients with small sessile rectal polyps, is a valid therapeutic option. In the present series 18 patients (12 males and 6 females) median age 77 years, (range 63-90) had endoscopic transanal resection. Four had carcinoma and 14 had benign sessile polyps. There was no post-operative complication. All of the 14 benign polyps were resected completely. One carcinoma was completely resected which has arisen in villous tumour and other 3 carcinomas had good palliation. This technique provides a cheap and effective way of treating rectal lesions utilizing existing equipment.

**Key words:** Rectal lesions, transanal resection.

Rectal tumors, benign or malignant are quite common. Most of the rectal carcinomas are treated by resection (anterior/abdominoperineal). In some patients, particularly the elderly and poor risk patients palliation is indicated. A wide variety of techniques are available for palliation which include irradiation<sup>1</sup>, YAG laser therapy<sup>2</sup>, cryosurgery<sup>3</sup>, endoscopic photodynamic therapy<sup>4</sup>, snaring<sup>5</sup>, electrofulguration<sup>6</sup> or defunctioning colostomy. Unfortunately with defunctioning colostomy symptoms of the patient often persist.

During my appointment at Warrington General Hospital UK in 1989-90, we carried out a study of such rectal lesions which were resected with the help of urological resectoscope (24Fr). There have been similar reports in the recent years, using urological resectoscope for such purpose<sup>7,8</sup>. A more recent report describes the use of a large resectoscope (36Fr)<sup>9</sup>.

## Patients and methods

We carried out a study of rectal lesions which were resected with the help of urological resectoscope (24Fr), during my appointment at Warrington General Hospital UK in 1989-90.

Patients were admitted two days prior to surgery. A phosphate enema was given on first day of admission. On second day the patient was kept on clear fluids. On the day of operation in the early hours of the morning (6 a.m.) a second phosphate enema was given. A third generation Cephalosporin plus Metronidazole 500mg I/V were given as prophylaxis with induction of anaesthesia as a single shot. Operation was performed under general or spinal anaesthesia, with the patient in gentle lithotomy position with the tail end slightly tilted upwards. Per rectal examination was done as preliminary.

An Olympus 24Fr resectoscope sheath is introduced with obturator in position. Obturator is removed and resectoscope is positioned after connecting the glycine and

suction channels. Lesion is identified and resection is carried out in the similar manner as for transurethral resection of prostate or bladder lesions. The tumour is resected up to muscle or perirectal fat.

At the completion of resection, resected area is checked for any major bleed and coagulated with the electrode. Care is mandatory for higher lesions, particularly above the peritoneal reflection in order to avoid perforation and peritonitis.

Resected chips are sent for histopathology and is followed up at 3-month intervals, when check sigmoidoscopy is carried out and the resection procedure repeated if needed.

## Results

Among total of 18 patients who underwent endoscopic transanal resection with a urological resectoscope (24 Fr.). Twelve patients were males and 6 patients were females. The age ranged between 63years to 90years with a median age of 77 years.. Four patients had carcinoma of lower third of rectum while 14 patients had benign sessile polyps. There was no post-operative complications. All of the 14 patients who had benign polyps were resected completely. One patient with carcinoma was completely resected which has arisen in villous tumour and other 3 patients with carcinomas had good palliation.

Results are encouraging and can be compared with other modes of treatment, like YAG laser<sup>10</sup>, Cryotherapy<sup>11</sup>, radiotherapy<sup>12</sup>, Photodynamic therapy<sup>13</sup>, etc in palliation of the patient. In benign conditions like villous adenoma, it is certainly a better option.

## Discussion

Kettlewell's group in Oxford pioneered the resectoscopic peranal excisional approach<sup>9</sup>. In several series, it was considered that local curative excision might have been achieved in some patients<sup>14</sup>.

The advantage of using a urological resectoscope is manifold. Irradiation quite commonly causes proctitis, irridiation cystitis is not uncommon, which adds to the misery of the patient. Cryotherapy has it's own problems. It leads to oedema after therapy. Patient may have foul smelling discharge per rectum for 3-4 weeks. It may result in stricture formation so failing to achieve its purpose.

YAG laser only available in specialized centers and expertise is needed. The load in the center is so great that they have a long waiting list<sup>10</sup>.

The advantage of urological resectoscope is manifold, the instrument is usually available in the hospital, technical expertise has already been acquired on urological conditions and the procedure can be easily repeated. There is more patient compliance than a defunctioning colostomy. Unfortunately this procedure has got its own limitations that is related to its extent. Resection should be confined to lesions below the peritoneal reflections<sup>15</sup>. Also problems of leakage of fluid from the anus. The later problem has been overcome within a recent study<sup>16</sup>, where they have used an adapted lord's dilator as a stopper around the resectoscope to prevent the leakage of irrigating fluid. In Germany they have developed a rectal resectoscope, enabling diathermy resection of rectal lesions growing into the lumen of rectum and making it possible to take the resection level up to or below the level of the muscularis propria<sup>15</sup>.

Clearly this new use of an established technique is a method of preference in the treatment of lower rectal lesions in patients who are unfit for major surgery or refuse major surgery and also for benign lesions like villous adenomas. In Kelly's series from Leicester, 40 patients underwent 61 endoscopic transanal resections using a urological resectoscope<sup>17</sup>. There were complications in 7 cases (6 bleeding and one septicaemia). Complications other than bleeding, perforation and septicaemia are pneumoperitoneum and pneumomediastinum due to ocult perforation, both of which may resolve spontaneously (Farmer et al, 1993)<sup>18</sup>. TAR is a minimally a invasive procedure. It is quick, safe and effective if performed caudal to the peritoneal reflection fold<sup>15</sup>.

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