

## **SUMMARY AND CONCLUSION**

- Rectal carcinoma is the most common malignancy of the alimentary tract representing about 35% of all rectal tumors.
- It is now understood that the adenoma carcinoma genetic sequence is the main etiology in addition to many predisposing factors.
- Advanced investigations including three dimensional MRI & ERUS are the main tool for local staging, choice of the optimal treatment method, type of resection, candidacy for neoadjuvant therapy and detection of early local recurrence.
- Rectal adenoma can be treated successfully by transanal excision, snare excision, or transanal endoscope microsurgery (TEM) or mucosectomy in the majority of cases.
- Adequate removal of the tumor is the first priority of surgery which can be achieved by total mesorectal excision (TME) (sharp dissection between the parietal and visceral pelvic fascia with complete removal of rectum, mesorectum and pararectal lymph nodes). Further more, it allows for preservation of the pelvic autonomic nerves, therefore reducing the local recurrence rate, bladder and sexual dysfunction.
- The laparoscopic approach offers several potential benefits over laparotomy, including less pain, early return of bowel function, improved postoperative immune function, shorter hospitalization, improved cosmesis and reduced intra-abdominal adhesions.
- On the other hand, inadequate excision, technical difficulty in performing stapled low rectal division and preservation of sphincter function and difficult pelvic dissection after preoperative radiotherapy are met during laparoscopy. This is supported by

developing autosutures and double stapling technique in anastomosis.

- Short term preoperative radiotherapy for locally advanced tumors is beneficial for downsizing and downstaging of the tumors allowing sphincter saving procedures. Postoperative chemo- and radiotherapy followed by early and regular follow up of patients after curative resection by tumor markers, imaging and endoscopy are important to reach a high cure rates.
- Molecular genetics are likely to impact every aspect of colorectal cancer screening, surveillance, prevention, diagnosis, staging and management especially in familial syndrome of colorectal neoplasms.
- There are many lines for treatment of recurrent and metastasizing rectal cancer including palliative chemo-radiotherapy, colostomy, radiofrequency, palliative resection and pelvic exenteration.
- Treatment of colorectal liver metastases includes chemo-therapy, radiofrequency, surgical resection and Gene therapy.