Anal canal tumors

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Malignant tumors of anal canal

- **Anal malignancy constitutes less than 2% of large bowel tumors.**
- **It can be below the dentate line (squamous cell carcinoma, 80% of anal cancers), or above the dentate line (Basaloid/ transitional/ adenocarcinoma).**
- **Causes include HPV infection, HIV infection, Anal intraepithelial neoplasia (AIN), organ transplant recipient, male homosexuality, immunosuppression.**

Classification

- **Tumors of the anus**
- **Tumors of the anal canal.**
- **Anal marginal tumors.**

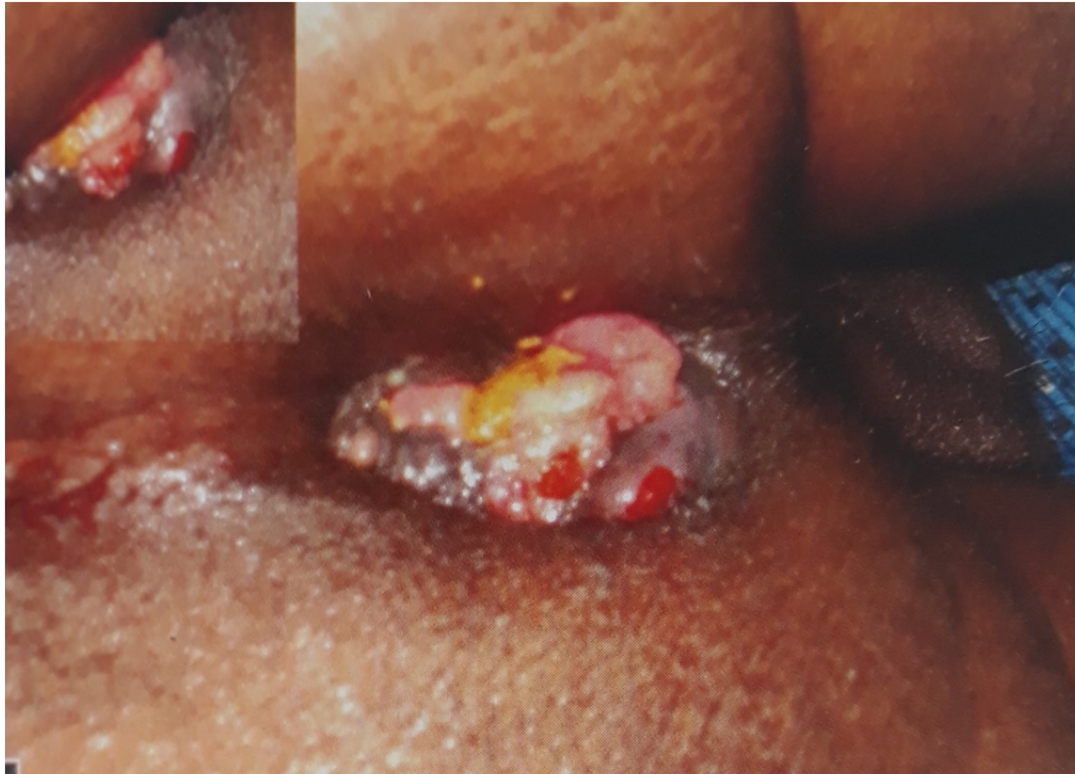
Types of anal canal tumors

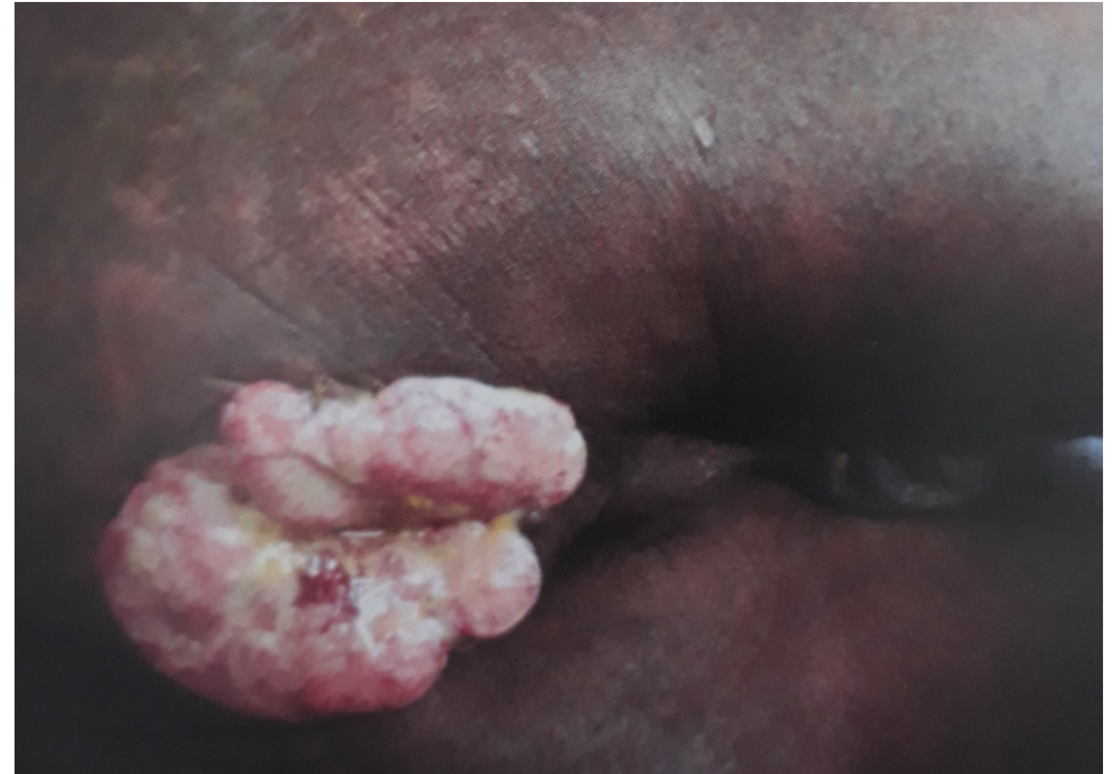
1. **Squamous cell carcinoma** is the commonest type. Predisposing causes include: papilloma, irradiation, dermatitis,long standing fistula in ano.
2. **Basaloid cell carcinoma:** rare , non keratinizing squamous cell carcinoma. Highly malignant.
3. **Muco-epidermoid** carcinoma- arises near squmous-columnar junction.
4. **Basal cell carcinoma.**
5. **Melanoma:** blue/black in color mistaken for thrombosed pile- poor prognosis.
6. **Adenocarcinoma:** above the dentate line and from anal crypt glands.

Clinical features

- **Bleeding**
- **Ulceration**
- **Pain, pruritus , and discharge.**
- **Irregular indurated mass.**
- **Anovaginal fistula in females.**
- **Fecal incontinence in late cases.**
- **Inguinal LAP: hard , fixed and non tender.**
- **Iliac LAP.**
- **Later poor stream stool(small caliber), constipation, obstruction**

Squamous cell carcinoma of anal canal





Investigations

- **Biopsy from the anal region.**
- **FNAC of inguinal lymph nodes.**
- **Endorectal ultrasound.**
- **Abdominal ultrasound.**
- **MRI perineum is very useful.**
- **DRE is a must to assess the upper extent of the growth.**

Staging of anal canal tumors (TNM)

Primary tumor	
TX	Primary tumor cannot be assessed
T0	No evidence of primary tumor
Tis	Carcinoma in situ (Bowen's disease), high grade- squamous intraepithelial lesion (HISL), AIN II-III
T1	Tumor 2 cm or less
T2	Tumor more than 2 cm but no more than 5 cm
T3	Tumor more than 5 cm
T4	Tumor of any size invades adjacent organ(s), eg, vagina, urethra, bladder (direct invasion) of rectal wall, peri-rectal skin, subcutaneous tissue, or sphincter muscle is not classified as T4

Regional lymph nodes (N)	
NX	Regional lymph nodes cannot be assessed
N0	No regional lymph node metastasis
N1	Metastasis in peri-rectal lymph node(s)
N2	Metastasis in unilateral internal iliac and/or inguinal lymph nodes
N3	Metastasis in perirectal and inguinal lymph nodes and/or bilateral internal iliac and/or inguinal lymph nodes

Distant metastases (M)	
M0	No distant metastasis
M1	Distant metastasis

Squamous cell carcinoma of anal canal.

- **Usually present as a fungating or ulcerative growth which spread to inguinal lymph nodes.**
- **Biopsy of the lesion and FNAC of lymph nodes are the essential investigations.**
- **Treatment : wide excision of the lesion with 3-5 cm clearence and ilioinguinal block dissection for lymph nodes are done. Follow up radiotherapy is also given.**
- **NIGRO regime.**

NIGRO protocol

- **Initial radiotherapy for 3 weeks 3000 rads (30 Gy total) to perineum and pelvis.**
- **Then chemotherapy – 5 FU, for 4-5 days, is a radiosensitizer, started on the 1st day of radiotherapy as 1000 mg/ m2 continuous infusion.**
- **Mitomycin C is 15 mg/ m2 as a single dose on the 1st day of radiotherapy.**
- **Chemoradiation is becoming popular for carcinoma of the anal canal.**

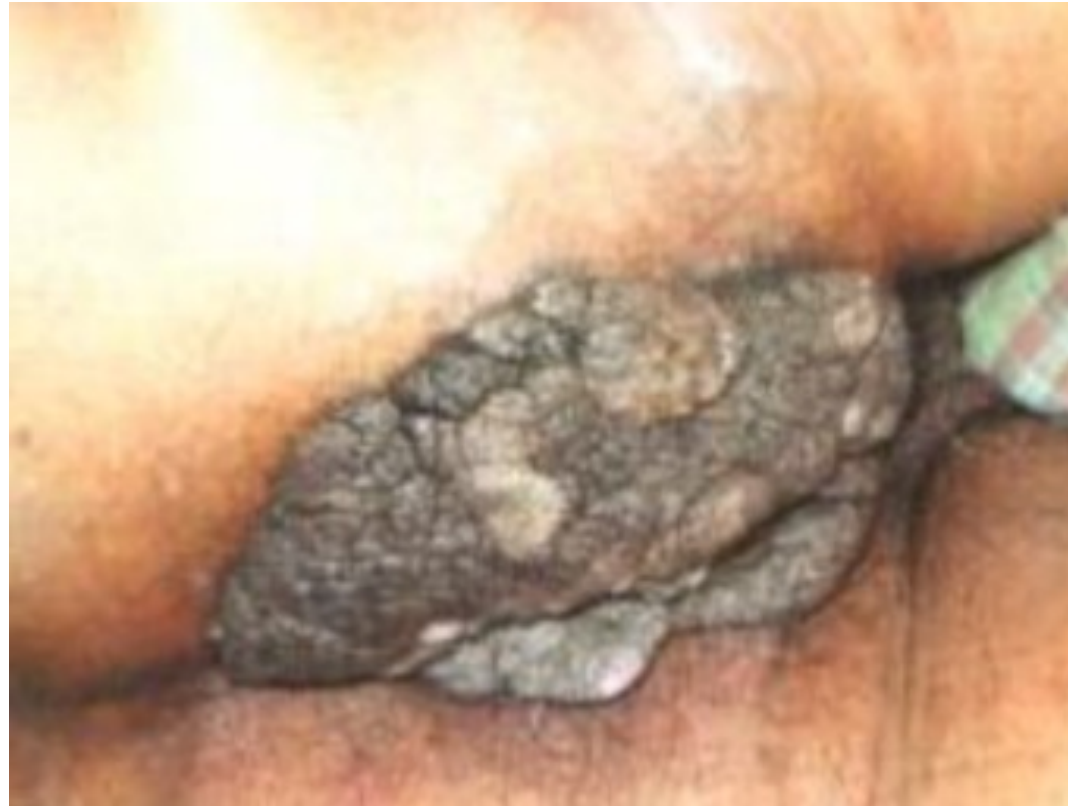
- **Drugs used for chemotherapyare 5FU, beleomycin, vincristine, adriamycin.**
- **In advanced growth, radiotherapy is the only treatment.**
- **All other tumors : abdomino-perneal resection with permanent colostomy is done.**

Anal margin tumors

1. **Bowen's disease.**
2. **Paget's disease.**
3. **Basal cell carcinoma.**
4. **Squamous cell carcinoma.**
5. **Verrucous carcinoma (Giant condyloma acuminatum or Buschke-Lowenstein tumor)**

Condyloma Acuminata

- **Most common sexually transmitted anal disease. Common in homosexual men. Caused by human papilloma virus (HPV).**
- **Penile wart or female genital wart may be present.**
- **Pruritus, discharge, pain,and bleeding are the features.**
- **Pinkish-white warts in the anal canal often attaining large size causing Buschke Lovenstein tumor.**
- **Large wart may block the anal canal orifice.**
- **Biopsy cofirms the diagnosis.**
- **Treatment is local application of 25% podophyllin cream, surgical excision of the wart, intralesional injection of interferon.**
- **Malignancy should be ruled out by histology.**



CONDYLOMA ACUMINATA

Anal incontinence

- Continence of anal canal is maintained by two main factors:
  - **Normal ano-rectal and colonic pressure and activty.**
  - **Normal pelvic floor function.**

Types of anal incontinence

- **Urge incontinence:** rectal and colonic pressure and activity is increased but normal pelvic floor.
- **True incontinence:** rectal and colonic pressure and activity is normal but defective pelvic floor function.
- **Full incontinence:** rectal and colonic pressure and activity is reduced and also defective pelvic floor function.
- **Temporary incontinence:** treated by reassurance. Often seen after Lord's dilatation.
- **Permanent:** needs definitive therapy

Causes of anorectal incontinence

- **Irritable bowel syndrome, sever diarrhea.**
- **Prolapsed piles, rectal prolapse.**
- **Old age, malnutrition, debilitating illness.**
- **Congenital anomalies.**
- **Trauma, surgeries,injury during child birth in females.**
- **Spina bifida, spinal tumors, spinal injuries,and surgeries.**
- **Malignancies , postirradiation.**
- **Psychological causes.**

Treatment of anorectal incontinence

- **Suturing of torn sphincter.**
- **Repair of puborectalis muscle and plication of external sphincter.**
- **Encircling operations around anal canal to give support using gracilis sling or mersiline sutures.**
- **Electrical stimulation of the puborectalis.**

Proctalgia Fugax

- **It is common in young people , may be due to stress, straining**
- **Common in night, starts suddenly, last for few minutes and then subsides spontaneously.**
- **Pain is unbearable and sever with often constipation.**
- **Gradually subsides on its own.**
- **Occasionally, only cutting of puborectalis muscle is required but with danger of developing incontinence.**

Pruritus ani

- **It is intractable itching in and around anal canal.**
- **Skin is reddened, hyperkeratotic cracked and moist.**
- **Causes include:**
  - **Poor hygiene.**
  - **Anal discharge due to fissure/ fistula/piles/ warts/polyp.**
  - **Parasites.**
  - **Allergic causes.**
  - **Dermatitis/ psoriasis.**
  - **Trichomonas vaginalis infection of vagina in females.**
  - **Intertrigo**
  - **Diabetes mellitus, psychological causes.**

Treatment of pruritus ani

- Proper cause should be assessed and treated.
- Good hygien, local steroid application, topical xylocaine,strapping of buttocks are needed.