Management of Colonic Polyps

MANAGEMENT OF COLONIC POLYPS

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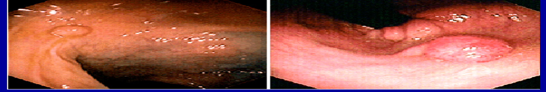
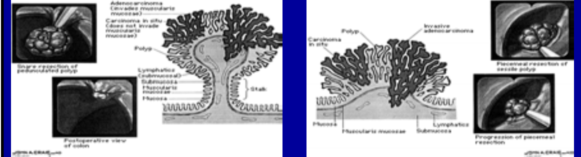
Polyps

- A macroscopic protuberance of the colonic mucosa into the lumen



Gross Pathology

- Sessile – protruding directly from the colonic wall
- Pedunculated – extending from the mucosa via fibrovascular stalk



Haggitt's Level

0 In Situ
1 Limited to head of the polyp
2 To the junction of the head and stalk
3 Invading any part of the stalk
4 Below the stalk

Symptoms

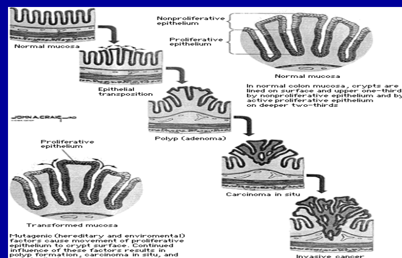
- Often asymptomatic, can ulcerate and bleed, cause abdominal pain and even intestinal obstruction

Classification

Non-neoplastic	Neoplastic
Hyperplastic •Mucosal •Inflammatory •Submucosal - Lipomas - Leiomyomas - Lymphoid aggregates - Carcinoids - Pneumatosis cystoides - Metastatic neoplasms •Hamartomatous - Juvenile = Retention polyps - Peutz-Jegher polyps	**•Benign** •Adenomatous -Tubular (65-80%) branching -Tubulovillous (10-25%) mixture -Villous (5-10%) straight **•Malignant** - Carcinoma In Situ - Invasive Carcinoma - Polypoid carcinoma

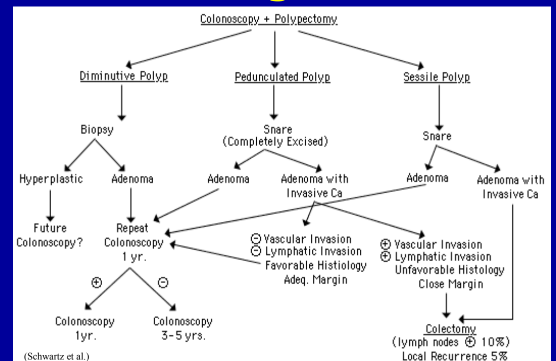
Polyp-Cancer Sequence - 3 Mechanisms *(Vogelstein et al.)*

Loss of methyl groups in DNA→Ras oncogene activation→Allelic loss of 18Q (DCC)→Loss of p53→Microsatellite instability (chr2)



Goal: eradication of colonic adenomas appears to be important in minimizing cancer risk.

Management



Management of Colonic Polyps

Dilemma:

What is the appropriate management of this patient with invasive disease given the inability to adequately localize the lesion?

- Conservative therapy with surveillance only
- Surgery (L hemicolectomy) with surveillance
- Surgery (Total Colectomy) with minimal surveillance

- **Snare excision (polypectomy) is the method of choice for sessile and pedunculated polyps**
- **Cancer in the head of a polyp treated by colonoscopic polypectomy**
- **Risk of lymph node metastasis is small (0 to 3 percent) and close follow-up rather than resection**
- **Intermediate lesions that invade only the neck or the stalk of the polyp are rarely associated with LN metastases**
- **Criteria for curative treatment by polypectomy for malignant pedunculated polyps:**
  - **No stalk involvement**
  - **No blood or lymph involvement**
  - **Well-differentiated**
  - **No residual or recurrence via follow-up**
- **Colectomy must be performed when the cancer within the head of the polyp has unfavorable features:**
  - **Poorly differentiated**
  - **Margins >2mm**
  - **Lymphatic or vascular involvement**
- **Carcinoma extending to base of the stalk undergoes colectomy (lymphatic spread 10 to 27%)**

The Value of Tattooing

- 2 Step method for marking polypectomy sites for identification
- 18 subjects requiring preop marking enrolled
- First injection with with saline
- Followed by India ink to mark the site
- **Conclusion:** 2-step tattooing method proved to be easy, safe, and accurate (Sawaki et al.)

- Colonic tattooing with India ink wide practice technique
- 195 subjects enrolled marked and excised
- Surgeons interview and reported polyps to be intensely visible and great use
- **Conclusion:** Pre-op mucosal tattooing recommended (McArthur et al.)

Surveillance

- National Polyp Study (NPS) - recurrence rate of 32-42% by three years after polypectomy alone
- Predictors for recurrence: quantity, index, size, and age>60
- 3 year interval determined by NPS in the setting of NO carcinoma

- Post-polypectomy for pts with carcinoma and favored histology is 3 months

- If follow-up colonoscopy verifies that no residual polyps exist, colonoscopy should be repeated within three years and thereafter ever five years

- McFall et al. reported importance of colonoscopic surveillance after colorectal resection
- 798/1437 pts in the study underwent resection with curative intent
- 352 of the 798 underwent follow-up colonoscopies
- Only 5.8% of the 352 pts formed an advanced adenoma over the next 36 months
- **Conclusion:** Surveillence intervals need not be less than five years

References

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