

A Case of Primary Rectal Mature Teratoma

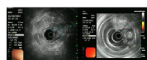
Department of Internal Medicine, Anyang Sam Hospital

*Hyun Sung Park, Seung Goun Hong, Se Young Jung, Shin Myung Kang, Sunghak Lee, Kyoungyong Lee, Woo-cho Chung

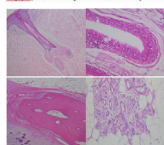
Background: A mature teratoma composed of normal derivatives of all three germ layers commonly occurs in ovaries, testes and mediastinum. Mature teratoma affecting the gastrointestinal tract is rare. We report a rare case of primary rectal mature teratoma presenting with lower abdominal discomfort, and surgically resected. **Case Report:** A 65 year-old woman presented with lower abdominal discomfort started about 2 months ago. Colonoscopy revealed a protruded lesion with a long stalk which looked like a submucosal tumor at about 12 cm from anal verge in the upper rectum. Abdomen CT revealed a 3.6 cm sized fatty mass with internal nodular calcifications located in the rectosigmoid junction. Endoscopic ultrasound revealed about 4 cm-sized hyperechoic, heterogeneous mass with irregular border in an exophytic pattern. Fine-needle aspiration biopsy failed due to hard nature of the mass. The patient had a surgery, and the intraluminal mass was connected to 1.5 cm sized protruding mass outside the serosa. On microscopic examination, the tumor was entirely covered with squamous epithelium and sections showed squamous epithelium, skin appendage, apocrine glands, hair follicle, bronchial epithelium, and bone. **Conclusion:** Teratoma should be strongly suspected during colonoscopy if hair is seen on the surface of the mass lesion. Because malignant transformation of mature teratoma is uncommon, a minimally invasive surgery or endoscopic polypectomy are usually performed.



Colonoscopy: 2.5cm sized mass with a few hair-like materials on the surface and a long stalk.



Endoscopic ultrasonography: hyperechoic, heterogeneous tumor with irregular border in exophytic pattern and no significant internal vascularity within the tumor.



Microscopic findings of surgical specimens: hair follicles, bronchial epithelium, bone, and large blood vessels.

Parthenolide Sensitizes Human Colorectal Cancer Cells to TRAIL

Department of Internal Medicine, Hospital-Chonbuk National University, Jeonju, Korea

*Ji-Eun Yoo, Kieu Thi Thu Trang, Se-Lim Kim, Soo-Teik Lee and Sang-Wook Kim

Background/Aims: Combination of tumor necrosis factor-related apoptosis-inducing ligand (TRAIL) with other agents is a promising strategy to overcome TRAIL resistance in malignant cells. Parthenolide (PT), a principal active component in medicinal plants, has been shown to enhance TRAIL induced apoptosis in malignant cells. However, whether PT enhances TRAIL's activity in colorectal cancer cells has never been studied. In this study, the effect of combination of TRAIL and PT was tested in colorectal cancer cells. **Methods:** Colorectal cancer cells were treated with PT and/or TRAIL. Proliferation inhibitory was detected by MTT assay. Annexin V staining, cell cycle analysis and Hoechst 33258 images were used to measure apoptosis. Protein expression related TRAIL pathway was analyzed by Western blotting. **Results:** A single treatment with TRAIL inhibited HCT116 cell growth in a dose-dependent manner, however, this reduction did not occur in TRAIL resistant HT-29. A combination of PT with TRAIL significantly inhibited cell growth and enhanced apoptosis of HT-29. We observed that the synergistic effect was mediated through regulated Bcl-2 family members, release of cytochrome C to cytosol, activation of caspases, and increase p53 level. **Conclusions:** Our results suggest that PT has the potential to overcome resistance to TRAIL in colorectal cancer cells.