Biopsy and Surgery

Haitham Saimeh*
Department of Surgery, King Faisal Specialist Hospital and Research Center, Saudi Arabia

Abstract

We are experiencing great advances in the medical field that help in early diagnosis of rectal cancer that tend to reduce the patient's morbidity and mortality, instead early prognosis, screening protocols greatly improved the overall patient's well-being. However it should always be taken into account that pathological biopsies have varying rates of specificity and sensitivity, therefore we should not only rely on pathological findings solely but patients clinical presentation still remains a gold standard for treatment setup. We can see from this case that we will not only depend on the preoperative biopsy pathological results, many cases with repeated multiple biopsies with benign lesions, however post resection pathology showed adenocarcinoma. Therefore, we should also depend on the clinical symptoms as well as on the scope finding indicating the "L" defined shape obstructing the lumen. In this case study, I will be presenting a case that was admitted and diagnosed in King Faisal Specialist Hospital and Research center that clearly revealed that biopsy does not always rule out malignancy (Figure 1).

Introduction

Screening is considered as a gold standard procedure since it saves the lives of numerous individuals because some patients whose cancer is detected and treated at an early stage would tend to prolong the survival age compared to those that are under diagnosed and miss the treatment. Based on previous studies conducted the predictive value of biopsy to detect malignancy include: Sensitivity: 96% whereas for specificity was 100% [1]. Regarding that the technical advances as imaging, colonoscopy, magnetic resonance imaging, pathological biopsies tend to have a great impact on colorectal surgery by reducing the level of mortality and morbidity, but we should always take into consideration that biopsies do not always rule out malignancy therefore as a physician we should always relay on the clinical presentation of the patient together with the biopsies done. We should always do continuous follow up programs to keep monitoring the patient's wellbeing and cancer progress (Figure 2). It's highly recommended to work with a multidisciplinary team including the pathologist, radiologist, and surgeons to discuss the patient's case from different clinical point of views and end up making the right decision regarding the approach followed.

Case Presentation

We reported a case of a 34 years old Malaysian lady who was investigated outside facility and diagnosed as Low Rectal Cancer. In our hospital, KFSH&RC, we did for her the full staging methods since staging assist the physician to determine the spread extent of the disease together with setting the appropriate treatment approach, but we should also take into consideration the patients comorbidities into account when setting the approach because this greatly affects

Figure 1: Pathology result revealed Tubulovillous adenoma together high-grade dysplasia
the prognosis. Clinical examination showed a 7 cm rectal mass, abdominal palpation was soft, lax, and showed no masses. CT CAP showed no distal metastasis. MRI pelvis revealed a 7 cm mass with T2 N0. Sigmoidoscopy was repeated with tattooing also biopsy taken from the rectal mass; pathology result revealed Tubulovillous adenoma together high-grade dysplasia. The patient was seen by Oncogynecologist because the CT scan showed a left ovarium mass with enlarged uterus. The decision was done to take the patient for OR, combination with the Oncogynecologist. The patient underwent left Oophorectomy and partial right Oophorectomy, with pathology as endometriosis. The patient had low anterior resection with anastomosis without diversion. The rectosigmoid pathology specimen showed adenocarcinoma T2 N0. She had smooth post-operative course.

Discussion

Multiple case reports placed great role of preoperative biopsies in surgical decision making, however regardless the great advances in imaging techniques and biopsy procedures still they could give false results so a surgeon should not completely rely on these specimens only. In this case, findings were negative for malignancy, but postoperative pathological results were positive for malignancy, this may be due that the specimen material might not be representative, therefore we should always consider doing re-biopsy and deeper levels should be taken if the physical examinations are contraindicating the pathological findings. In order to correctly define exactly the distal and proximal parts of the tumor tattooing procedure is done mainly in multiple soft colonic masses since this procedure gives the surgeon a well-defined map road intraoperatively, so the surgeon would be able to undergo complete resection of the tumor to achieve free edges postoperatively and this contributes greatly to the prognosis of the patient postoperatively. Regarding this case we did tattooing scope for the ovaries, 2 cm to 3 cm below and above the mass in a free edge area (Figure 3). Tattooing is very important in scope, specifically low rectal soft masses, since sometimes it is difficult to do complete resection if you are unable to define the mass intraoperatively.

Conclusion

In this case although the pathology results revealed benign result, we decided to admit her for surgery, and the final pathology showed adenocarcinoma. We have a lot of cases that the pre-op the pathology is benign, and the final pathology after surgery showed cancer. Therefore, we must always depend on other risk factors as MRS and CT CAP results; also we must take in consideration the importance of scoping before the surgery for biopsy confirmation and the tattooing. Sometimes we should repeat biopsies that showed benign lesion, because when the patient is delayed from a life saving surgery, this would greatly affect the stage, so if you are in doubt, take it out. We must also concentrate on tattooing before surgery, especially on low rectal masses.

References