e - ISSN - 2349 - 8005

INTERNATIONAL JOURNAL OF ADVANCES IN CASE REPORTS

Journal homepage: www.mcmed.us/journal/ijacr

PROMPT DIAGNOSIS OF ABDOMINAL WALL RECURRENCES FROM COLORECTAL CANCER REQUIRES HIGH INDEX OF SUSPICION

Esther Uña Cidon[1*], James Bennett[1], Sophie Needham[1], Joanna Hack[2]

[1]Department of Oncology and Haematology, Royal Bournemouth and Christchurch Hospital NHS Foundation Trust, Bournemouth (UK).
[2]Department of Oncology and Haematology, Poole Hospital NHS Foundation Trust, Poole (UK).

Corresponding Author:- **Esther Uña Cidon**
E-mail: aunacid@hotmail.com

Article Info
Received 15/08/2015
Revised 27/08/2015
Accepted 02/09/2015

Key words:
Abdominal wall recurrences,
Colorectal cancer.

ABSTRACT
Abdominal wall recurrences from colorectal cancer following oncological surgery are rare. However, with the appearance of port site metastases after laparoscopic resections it has received fresh attention. Prompt recognition is the key since this will influence patient's management and subsequent quality of life. We present the case of a female who was diagnosed with an abdominal wall recurrence at the site of the previous ileostomy several months after the lesion appeared. A high grade of suspicion seems necessary for a prompt diagnosis and management.

INTRODUCTION

Colorectal cancer recurrence in the abdominal wall following oncological surgery is a rare and poorly understood process. However, with the appearance of port site metastases after laparoscopic resections, it has received fresh attention. Although the incidence of these metastases is unknown, prompt recognition seems to be very important since this can influence patient management and subsequent quality of life.

We present the case of a female who was diagnosed with a local abdominal wall recurrence several months after the first sign appeared.

CASE REPORT

A 43 year old female presented with a two months history of diarrhoea, significant weight loss and mild rectal bleeding. A digital rectal examination did not show anything abnormal, but a proctoscope demonstrated a tumor 10 cm from the anal verge with no obstruction. Biopsies confirmed grade III adenocarcinoma. The CT scan did not reveal any evidence of metastases and a pelvic MRI scan staged the tumor locally as T4N2.

The patient underwent neoadjuvant chemotherapy with CAPOX (capecitabine and oxaliplatin) for four cycles with marginal response. She subsequently received concomitant radiotherapy and capecitabine.

Six weeks after completing her treatment, the pelvic MRI scan showed a T3N2 rectal tumor and CT imaging again excluded any metastatic disease. An open high anterior resection was performed and a defunctioning ileostomy was sited. The post-operative recovery was uncomplicated and the patient received four further cycles of adjuvant chemotherapy - two with CAPOX and two with capecitabine monotherapy as she developed persistent peripheral neuropathy. The pathological results confirmed ypT2ypN1 disease, KRAS mutated.

A surveillance CT scan performed six months after surgery was clear and the stoma was reversed. The patient then remained under follow-up.

At four and a half years after the initial surgery, the patient presented to the GP with a 5 mm hard, erythematous nodule and associated pruritus at the previous ileostomy site. She was otherwise asymptomatic.

She had been reviewed by her GP several times over the past six months for other reasons and had not mentioned this abnormality; the issue was only raised once this nodule had grown and started to cause discomfort. The GP initially felt that it could be an insect bite and prescribed topical antihistamines and steroids. After a short improvement, recurrent discomfort and worsening pruritus were reported. One month later, the patient returned to the GP as the area looked swollen, more erythematous and exudative. It measured approximately 12 mm and topical antibiotics and oral anti-inflammatories were prescribed. After no clinical improvement, the GP referred the patient to the Oncology team. Physical examination at that stage confirmed an 18 mm hard, erythematous nodule. Given the suspicion of a late recurrence of malignancy, a full blood profile including CEA level and a CT scan were requested.

Two weeks later, the patient was reviewed with the results. She had developed a mass which measured 40 mm and the CEA level was 4054 ng/mL. CT imaging confirmed liver and lung metastases and she was offered palliative treatment with FOLFIRI (5-fluorouracil and irinotecan) and bevacizumab. Within the first month of treatment, the abdominal mass continued to grow and developed central ulceration (Figures 1 and 2). At the same time, the patient's clinical condition deteriorated and she started to experience abdominal pain, in addition to reporting an offensive smelling brown liquid discharge from the mass. On examination, the mass showed a communication with the inside of her small intestine. At this stage, the chemotherapy was stopped and symptomatic treatment was started. The patient unfortunately died within a few days from sepsis.

Figure 1. Abdominal recurrence from colorectal cancer

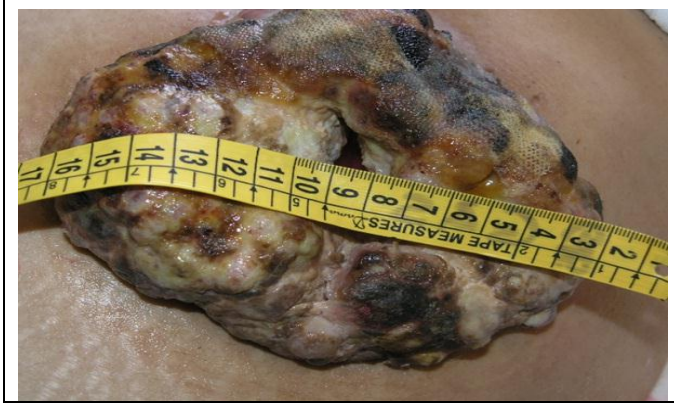

Figure 2. Abdominal wall recurrence from colorectal cancer with entero-cutaneous fistulae

DISCUSSION AND CONCLUSION

There is clear evidence that in cases of intra-abdominal cancer, either surgical or diagnostic procedures penetrating the abdominal wall can contaminate it with malignant cells which could cause a future wall recurrence (Prasad A et al) [1]. This is the reason why open surgical resection has been traditionally preferred for colorectal cancer, with laparoscopic resection appearing to be associated with certain complications - port site metastases being the most concerning (Prasad A et al) [1].

The incidence of these metastases was originally thought to be high; however, prospective randomized trials (Maxwell-Armstrong CA et al) [2] have been unable to show any differences between open and laparoscopic groups (less than 1%). Moreover, laparoscopic resections have some advantages compared to open surgery, such as lower post-operative pain scores, less intra-operative blood loss, shorter duration of both post-operative ileus and hospital stay, amongst others.

Several small clinical studies have described solitary abdominal wall recurrences (Koea JB et al) [3], although the general belief is that visible disease in the abdominal wall is often a sign of disseminated intra-abdominal cancer (Chandra A et al) [4]. However, an aggressive resection in patients with disease restricted to the abdominal wall can control local disease with little morbidity.

Our case shows a local recurrence with disseminated intra-abdominal disease at the point of diagnosis. What is unfortunate is the fact that the local recurrence could presumably have been diagnosed earlier, although it is difficult to know if this would have changed the patient's prognosis. Unfortunately, the tumor involving the abdominal wall continued to grow, even once the chemotherapy had been administered. It developed a central necrosis resulting in an entero-cutaneous fistula which ultimately triggered a sepsis episode and led to the patient's death.

Some published data indicate that wound recurrence is less common in patients with rectal primaries than with colonic primaries. In fact, in the series published by Koea et al [3], right-sided lesions accounted for 59% of cases that developed abdominal wall disease. These authors also presented several types of wall recurrences, but only 3 out of 31 developed the recurrence in a previous ostomy port; in one case, a laparotomy had been performed yet disease subsequently recurred in a subcostal incision

previously used for an open cholecystectomy. This data suggests that many recurrences in the abdominal wall are the result of direct contamination, which would emphasize the relevance of careful surgical technique to minimize tumor spillage in all cancer resections [3]. However, Chaturvedi et al [5] suggested that clinical evidence favors haematogenous seeding. At present we can conclude that more evidence is needed before drawing final statements, but one fact seems particularly important; namely early diagnosis, as this can allow us to treat the tumor radically with better chances of survival. These authors (Chaturvedi S et al) [5] also suggested that port site metastases are an expression of aggressive malignancy, usually being associated with disseminated cancer and therefore a poor prognosis.

Unfortunately, there are few studies about these types of recurrences and they do not generally make any distinction between solitary and multiple recurrences. We would therefore need more data to be able to draw definitive conclusions. Despite this, our article does alert healthcare professionals managing such patients and emphasizes the importance of patient education to look for potential lesions. In addition, this is a reminder that careful examination of previous incisions is an important aspect of follow-up review. A high index of suspicion should be given to lesions in those areas, since early diagnosis and intervention may impact on survival and quality of life.

ACKNOWLEDGEMENTS

We would like to thank the patient and her family for their calm and collaboration in these difficult circumstances.

CONFLICT OF INTEREST: NIL

REFERENCES

1. Prasad A, Avery C, Foley RJ. (1994). Abdominal wall metastases following laparoscopy. *Br J Surg*, 81, 1697.
2. Maxwell-Armstrong CA, Robinson MH, Scholefield JH. (2000). Laparoscopic colorectal cancer surgery. *Am J Surg*, 179, 500-507.
3. Koea JB, Lanouette N, Paty PB, Guillem JG, Cohen AM. (2000). Abdominal wall recurrence after colorectal resection for cancer. *Dis Colon Rectum*, 43, 628-632.
4. Chandra A, Lee L, Hossain F, Johal H. (2008). A rare case of isolated wound implantation of colorectal adenocarcinoma complicating an incisional hernia: case report and review of the literature. *World J Surg Oncol*, 6, 5.
5. Chaturvedi S, Bansal V, Kapoor R, Mandhani A. (2012). Is port site metastasis a result of systemic involvement? *Indian J Urol*, 28, 169-173.