Content available at: https://www.ipinnovative.com/open-access-journals

IP Journal of Diagnostic Pathology and Oncology

Journal homepage: https://www.jdpo.org/

Case Report

Sarcomatoid carcinoma of colon: Report of a rare case

Jagannath D. Sharma[1], Asreen Suhana[1,*], Barasha S Bharadwaj[1], Adahra Patricia Beso[1], Muktanjalee Deka[1], Upasana Kalita[1], Bibhash Chandra Goswami[2]

[1]*Dept. of Pathology, State Cancer Institute, GMC, Guwahati, Assam, India*
[2]*Dept. of Radiation Oncology, State Cancer Institute, GMC, Guwahati, Assam, India*

ARTICLE INFO

Article history:
Received 03-07-2023
Accepted 07-08-2023
Available online 28-08-2023

Keywords:
Sarcomatoid carcinoma
Colon
Immunohistochemistry

ABSTRACT

Sarcomatoid carcinoma of colon is an extremely rare biphasic tumour with less than 50 reported cases in literature, either as Sarcomatoid carcinoma or carcinosarcoma. Here, we report a case of a 65 years old lady who presented with pain abdomen. On colonoscopy, a colonic mass was noted with intussusception. Right hemicolectomy was performed and the specimen was sent for histopathological examination. Following histopathology and immunohistochemistry, it was reported as Sarcomatoid carcinoma of Colon.

1. Introduction

Sarcomatoid carcinoma is described as pseudosarcomatous carcinoma, carcinosarcoma, spindle cell carcinoma or carcinoma with mesenchymal stroma in various studies.[1] With uncertain histogenesis, this rare tumour is composed of carcinoma and mesenchymal cells and discovered at various locations like head and neck respiratory tract, male and female genital tracts and gastrointestinal tract.[2,3] In GIT, oesophagus and oropharynx are the common sites with colon being a rare site.[4] Many of these tumours in colon may be diagnosed as GIST, Malignant fibrous histiocytoma (MFH), or leiomyosarcoma. Immunohistochemical staining with cytokeratin and vimentin is helpful in the diagnosis of Sarcomatoid carcinoma of Colon.

We report a case of a 65 years old lady, a known case of Non-Small Cell Carcinoma of Lung on treatment, who presented with pain abdomen. On examination, she had tender abdomen. CECT revealed colonic intussusception with large colonic mass causing obstruction. The patient was put up for right hemicolectomy and the specimen was sent for histopathological examination.

2. Gross Examination

A right hemicolectomy specimen was received measuring 30 cm in length. On cut open, a polypoid mass measuring 9 x 6.5 x 3 cm was noted in the ascending colon, 16 cm from the proximal and 4 cm from the distal resection margins. Cut surface was solid and whitish.

3. Microscopy

Sections from the polypoidal tumour was composed of pleomorphic round to epithelioid spindly cells. Mitoses of 12-15/ HPF was noted. Lymphovascular and perineural invasion were not seen.

4. Immunohistochemistry

On IHC, tumour cells were positive for both vimentin (Fig.5) and Pan-cytokeratin (Figure 4).

* *Corresponding author*.
E-mail address: asreensuhana@gmail.com (A. Suhana).

https://doi.org/10.18231/j.jdpo.2023.040

Fig. 1: Gross appearance of the tumour showing polypoidal grey white mass as part of intussusception

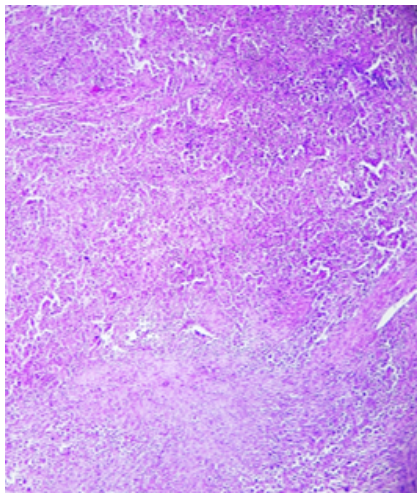

Fig. 2: Low power view

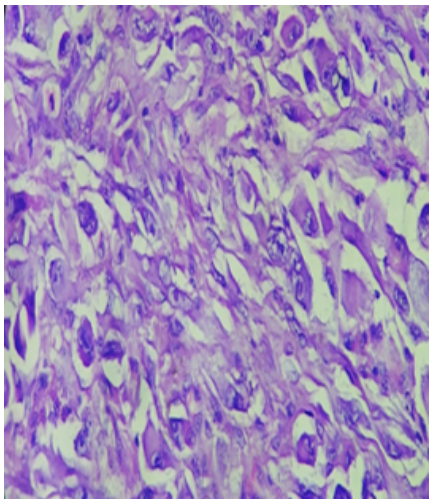

Fig. 3: High power view

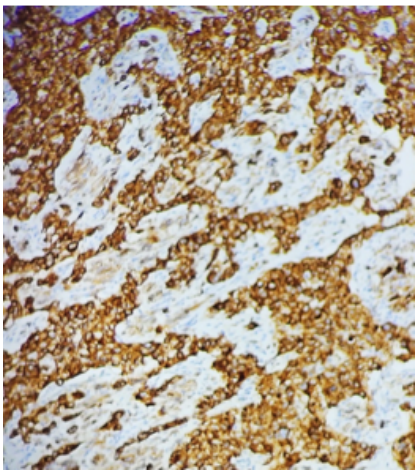

Fig. 4: Pan-cytokeratin positivity

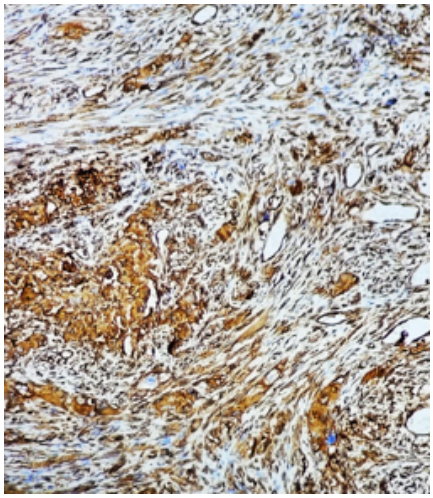

Fig. 5: Vimentin positivity

So, histopathology and IHC confirmed the diagnosis of sarcomatoid carcinoma of colon.

5. Discussion

Sarcomatoid carcinoma of colon was first described by Weidner and Zekan in 1986.[5] It is an aggressive, rare tumour and associated with poor prognosis. Less than 50 cases have been reported in literature till date. Due to limited studies on this tumour, the prognostic factors are yet to be properly elucidated.

Various studies have tried to explain the pathogenesis of this tumour. Study done by Gentile et al[6] had described the progression of tumour from tubulovillous adenoma to sarcomatoid carcinoma. Study done by Delahunt at al[3] linked the accumulation of p53 proteins with the conversion of carcinoma to sarcomatoid tissue.

Histopathologically, the epithelial cells undergo epithelial-mesenchymal transition and appear spindle shaped.

Lymph nodal and distant metastases have been described for the carcinomatous component and is rare for the sarcomatous component.[7] As this is a rare and aggressive tumour with poor prognosis, specific treatment guidelines are limited. Radical surgery, adjuvant chemotherapy and close follow-up is the accepted norm.[8,9]

In this case, the patient has undergone surgery and is now on adjuvant chemotherapy.

6. Conclusion

More studies on this rare aggressive tumour with poor prognosis needs to be done to find out the epidemiological and prognostic factors. Immunohistochemistry plays a pivotal role in the diagnosis of such tumours with spindle cell morphology.

7. Conflict of Interest

The authors declare that there are no conflicts of interest pertaining to the publication of this paper.

8. Source of Funding

None

References

1. Iezzoni JC, Mills SE. Sarcomatoid carcinomas (carcinosarcomas) of the gastrointestinal tract: a review. *Semin Diagn Patho*. 1993;10(2):76–87.
2. Chang N, Kao DS, Lee L, Chang JW, Hou M, Lam WL, et al. Sarcomatoid carcinoma in head and neck: a review of 30 years of experience–clinical outcomes and reconstructive results. *Ann Plast Surg*. 2013;71(Suppl 1):1–7. doi:10.1097/SAP.0000000000000069.
3. Delahunt B, Eble JN, Nacey JN, Grebe SK. Sarcomatoid carcinoma of the prostate: progression from adenocarcinoma is associated with p53 over-expression. *Anticancer Res*. 1999;19(5):4279–83.
4. Isufi M, Ali JBJ, Joseph D, Abugoukh TM, Ghobriel NG. Spindle Cell Carcinoma (Sarcomatoid) of Colon Presenting as Weight Loss. *Cureus*. 2021;13(9):e18146. doi:10.7759/cureus.18146.
5. Weidner N. Sarcomatoid carcinoma of the upper aerodigestive tract. *Semin Diagn Pathol*. 1987;4(2):157–68.
6. Gentile R, Castellaneta A. Carcinosarcoma del colon, uno o due tumori? [Carcinosarcoma of the colon, one or two tumors? *Pathologica*. 1997;89(1):62–8.
7. Takeyoshi I, Yoshida M, Ohwada S, Yamada T, Yanagisawa A, &morishita Y, et al. Skin metastasis from the spindle cell component in rectal carcinosarcoma. *Hepatogastroenterology*. 2000;47(36):1611–4.
8. Chundru S, Nandennavar M, Karpurmath S, Angadi V, Veerendra. Sarcomatoid carcinoma of the colon: a rare diagnosis. *Int J Res Med Sci*. 2021;9(4):1209–11. doi:10.18203/2320-6012.ijrms20211378.
9. Kim JH, Moon WS, Kang MJ, Park MJ, Lee DG. Sarcomatoid carcinoma of the colon: a case report. *J Korean Med Sci*. 2001;16(5):657–60. doi:10.3346/jkms.2001.16.5.657.

Author biography

Jagannath D. Sharma, Professor and Consultant

Asreen Suhana, Senior Resident

Barasha S Bharadwaj, Assistant Professor

Adahra Patricia Beso, Assistant Professor

Muktanjalee Deka, Professor and HOD

Upasana Kalita, Fellow

Bibhash Chandra Goswami, Director

Cite this article: Sharma JD, Suhana A, Bharadwaj BS, Beso AP, Deka M, Kalita U, Goswami BC. Sarcomatoid carcinoma of colon: Report of a rare case. *IP J Diagn Pathol Oncol* 2023;8(3):172-174.