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An unusual cause of colic stenosis in a renal transplant recipient: primary colonic diffuse large B-cell lymphoma

BACKGROUND: *Primary colic lymphoma represents a rare disease accounting for the 0.2%-0.6% of all large-bowel malignancies. We here report a case of diffuse large B-cell lymphoma presenting as a left colic stenosis in a patient who had undergo renal transplant 23 years before.*
CASE REPORT: *A 67-years old man presented with recurrent abdominal pain, distension, nausea and constipation since 3 weeks. His past medical history included hepatic and renal polykystose with renal transplant 23 years before. Colonoscopy revealed a non-surmountable inflammatory left colic stenosis at 55 cm from the anal verge. Biopsies demonstrated inflammatory colic mucosa without neoplastic cells. Non-enhanced CT scan and CT virtual colonoscopy were performed, showing a left colon circumferential thickening of 4 cm. Laparoscopic left colectomy was performed to treat the colic obstructive syndrome and to have complete specimen analysis. After Pathological analysis and Immunohistochemistry the diagnosis of diffuse large B cell lymphoma was established. The resection was R0. The postoperative course was uneventfully.*
CONCLUSION: *Large B-cell lymphoma represents a rare case of bowel tumor. However it has to be considered in the differential diagnosis of colic stenosis in immunosuppressed patients as transplant recipients.*

KEY WORDS: Colorectal lymphoma, Diffuse large B-cell lymphoma, Immunosuppressed patients

Case Report

A 67-years old man came to our Hospital for recurrent abdominal pain and distension, nausea and constipation, which had started 3 weeks before. His past medical history included hepatic and renal polykystose, renal transplant 23 years before, and hypertension. Clinical examination showed a distended abdomen with left quadrants tenderness, and no feces at digital rectal examination. Vital signs were normal. Blood tests showed an inflammatory syndrome with 10.7x10x*9/l leucocytes and C-reactive protein at 56.8 mg/l. Colonoscopy revealed a non-surmountable inflammatory left colic stenosis at 55 cm from the anal verge, and the presence of colic diverticula. Biopsies demonstrated inflammatory colic mucosa without neoplastic cells. Non-enhanced CT scan and CT virtual colonoscopy were performed, showing a left colon circumferential thickening of 4 cm (Fig. 1 A, B). Among tumor marker, CA 19.9 was elevated at 520 U/ml. Thoracic CT scan was normal and abdominal ultrasound showed non-complicated renal and hepatic polykystose. Laparoscopic left colectomy was performed to treat the colic obstructive syndrome and to have complete specimen analysis. Pathological analysis revealed the presence

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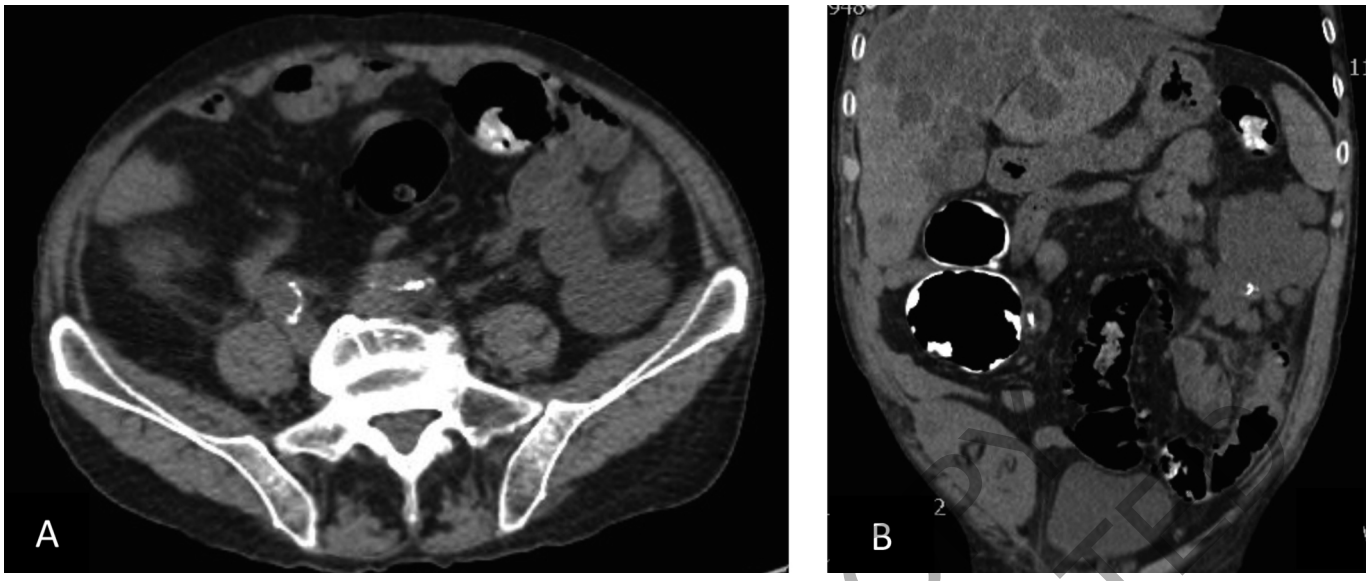

Fig. 1 A-B: Colic lymphoma, appearing as a left colic stenosis at CT imaging.

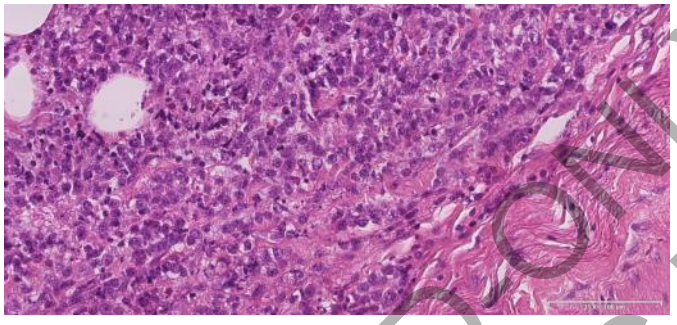

Fig. 2: H&E staining showing large tumoral lymphoid cells in the colic sub-serosa, with retracted cytoplasm and an oval nucleus with irregular profile.

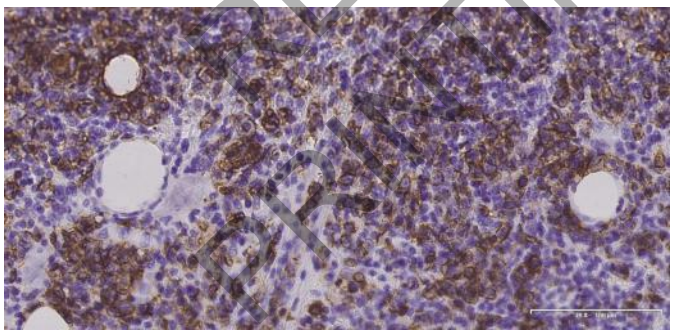

Fig. 3: Immunohistochemistry showing CD20 positivity of colonic lymphoma.

of large tumoral lymphoid cells in the colic sub-serosa, with retracted cytoplasm and an oval nucleus with irregular profile (Fig. 2). A 2 cm nodule with the same characteristics was found in the mesocolon.

Immunohistochemistry showed CD20 positivity (Fig. 3). BCL6 was positive in more than 30% of tumoral cells. Ki 67 index was 80%. CD10, BCL2, MUM-1P, CD30, CD 15, ALK, EBV LMP-1, HHV8, cyclin D1 were negative. Fish analysis demonstrated IgH locus rearrangement. The diagnosis of diffuse large B cell lymphoma was established. The resection was R0. The postoperative course was uncomplicated. The patient refused postoperative chemotherapy.

Discussion

Primary colic lymphoma represents 1.4% of all cases of Non-Hodgkin lymphomas and 0.2%-0.6% of all large-bowel malignancies [1-4]. According to the Ann-Arbor classification, the most common histological types are diffuse large B-cell lymphomas with frequency rate ranging from 47% to 81%, Mantle-cell lymphomas and Burkitt's lymphomas [4]. Symptoms are often delayed and not specific: abdominal pain, anorexia, weight loss and presence of a palpable mass are the most frequent symptoms and signs [1-3,5]. Colic obstruction represents a rare complication, because usually colic lymphoma does not elicit a desmoplastic response, and submucosal lymphoid infiltration weakens the muscularis propria, despite the severe luminal narrowing [2]. Risk factors of colic lymphoma are immunodeficiency, chronic immunosuppression and inflammatory bowel diseases [3]. We report a case of diffuse large B-cell lymphoma presenting as a left colic stenosis in a patient who had undergo renal transplant 23 years before. Recipients of renal transplants are known to have an increased incidence of cancer, related to the use of immunosuppressive drugs, and sporadic cases of colorectal lymphoma have already been reported after renal

transplantation [6-8]. Correct preoperative diagnosis is challenging. At CT scan, findings which may suggest colic lymphoma (even if not specific) are: abdominal and/or pelvic lymphadenopathy, demarcation from the pericolonic fat with no invasion of surrounding viscera and the presence of perforation in the absence of desmoplastic reaction [2]. In literature the treatment of colorectal diffuse large B-cell colic lymphoma includes chemotherapy, radiation surgery. However the first choice treatment is represented by a multimodal approach, combining different therapies[2].

Conclusion

Large B-cell lymphoma represents a rare case of bowel tumor, rarely presenting with colic obstruction. However has to be considered in the differential diagnosis of colic malignancies especially in immunosuppressed patients as transplant recipients.

Lessons Learned

Our case underlines the importance of considering colic lymphoma in the differential diagnosis of colic stenosis in renal transplant recipients.

Riassunto

Il linfoma primitivo del colon è una malattia rara che incide per 1,4% e rappresenta lo 0,2% -0,6% di tutte le neoplasie del grosso intestino. Riportiamo qui un caso di linfoma diffuso a grandi cellule b che si è manifestato con stenosi del colon sinistro in un paziente sottoposto a trapianto renale 23 anni prima.
Il paziente, di 67 anni, si è presentato per dolore addominale ricorrente, distensione addominale, nausea e stipsi da 3 settimane. La sua anamnesi patologica remota comprendeva policistosi epatica e renale, con necessità di trapianto renale 23 anni prima. La colonscopia effettuata ha rivelato la presenza di una stenosi infiammatoria del colon sinistro a 55 cm dal margine anale, non superabile dal colonscopio. Le biopsie hanno dimostrato una mucosa infiammata al livello del colon senza presenza dicellule neoplastiche. La TC senza contrasto e la colonscopia virtuale hanno dimostrato un ispessimento circonferenziale del colon sinistro di 4 cm. È stata eseguita quindi un'emicolectomia sinistra laparoscopica per risolvere la sindrome occlusiva e per avere un'analisi completa del pezzo anatomico. Con lo studio istopatologico ed immunoistochimico è stata posta diagnosi di linfoma diffuso a grandi cellule b. La resezione è stata R0, ed il decorso postoperatorio è stato privo di complicanze.
Il linfoma a grandi cellule b rappresenta un raro caso di tumore del colon. Tuttavia deve essere considerato nella diagnosi differenziale della stenosi colica in pazienti immunosoppressi a seguito di trapianto.

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