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A case study of Crohn's disease and intracranial tumour

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Abstract

Crohn's disease is a form of inflammatory bowel disease. It commonly affects the terminal ileum and colon but may be seen anywhere from the mouth to anus.

"The association of the inflammatory bowel disease with neurological involvement is unusual and often contra-version. We report the case of 53 years old female with 20 years history of well controlled Crohn's disease and found to have benign brain tumour found on CT scan. The patient has one year of impaired memory and concentration. Subsequent MRI did conform meningioma.

It is not clear whether this is a coincidence finding or there is a link between Crohn's disease and neurological pathology. This case might highlight further support of the assumption that CND pathology occur during CD

Keywords: Crohn's disease, intracranial pathology.

نبذة مختصرة

داء كرون هو احد أشكال التهاب الأمعاء الذي يشمل أيضا مرض القولون التقرحي. بالعادة داء كرون يصيب نهاية الأمعاء الدقيقة ولكن قد يشمل أي جزء من الجهاز الهضمي من الفم الى فتحة الشرج.

"العلاقة بين امراض التهاب الأمعاء نتيجة داء كرون والجهاز العصبي غير منتشرة ودائما مثيرة للجدل". نحن بصدد ذكر حالة مريض تبلغ من العمر ٥٣ سنة مع اصابتها بداء كرون لمدة ٢٠ سنه ولكنها بصحة جيدة، قد وجد عندها ورم ماغي حميد عند اجرء الصورة الطبقية للدماغ. وقد اكد الرنين المغناطيسي وجود ورم سحائي.

من غير الواضح اذا ما كان هناك علاقة بين داء كرون وامراض الجهاز العصبي.

في هذه الحالة نحن نسلط الضوء لغرض دعم فرضية العلاقة بين داء كرون والجهاز العصبي.

الكلمات المفتاحية: داء كرون، امراض داخل الجمجمة.

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Introduction

It is well known that extra-intestinal' features of inflammatory bowel disease are common and well documented, and it includes Extra intestinal manifestation of inflammatory bowel disease includes Arthritis: periarticular, Erythema nodosum, Episcleritis, uveitis Osteoporosis. But the association of IBD with neurologic involvement is rare and often controversial (Lossos,1995).
However, on another other study it did show that neurological manifestations in IBD patients are more common than previously estimated and may follow a different pattern of involvement in CD and UC(Zois,2010).

The incidence of alterations of the central and/or peripheral nervous system in a patient with Crohn s disease (EC) is 33.2%(Santos,2001).

We introduced this case of 53 years old female with CD with memory problem, lack of concentration, which revealed after having brain scan to have meningioma. The natural course of this unusual finding is not well known.

Case Report

A 53-year-old lady has been presented with a year history of impaired memory, lack of focus and concentration and brain fog. She is known case of well controlled Crohn's disease over 20 years with very little flare up during this period. She has been attending the practice during the period of time she was feeling like this. She was very anxious, but she has always been reassured as there were no major incidents that occurred during work nor at home. I've seen this patient and listened to her complaints and she was feeling agitated and concerned almost quite volatile as she was naturally concerned that her symptoms would gradually worsen. Just like usual I've taken her history and performed a physical examination including a neurological examination, which all came back normal. I then performed a six-item cognitive impairment test and she scored 0 and that was extremely reassuring for her.

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However, I did ask for a basic blood test. (FBC, U&E, LFT, TFT, Lipid profile) as well as refer her for routine CT head.

The blood test reveals the following: wbc (11), HB 14, Platelets 376, neutrophil 3.4lymphocyte 1.2, Eosinophil 0.1, MCV (82), MCHC (33)
ALT: 42, Alk. Phosh: 125, bilirubin 17, albumin 34.
TSH 1.23, T3 (6.4), Cholesterol 4.7, TGS, 0.7, LDL 2.8, HDL 1.3,
Urea 5, creatinine 90, Egfr >90, Na 134, K 4.5, Vitamin D (150, Vit B12 (250)
The CT scan did shows temporal lobe meningioma; hence she was recalled having MRI with contrast which did conform the tumor.
She was referred accordingly urgently to see the neurosurgeon.
Her case was discussed in the MDT and eventually she underwent surgery to remove the tumour and did a well recovery.

Discussion

The neurological manifestation of Cronh's disease and its prevalence are not well known (Nemati,2019). Few systemic studies have investigated the frequency of neurological disorder and patients with. Additionally, results from these studies have been inconsistent, which is mainly due to discrepancies in case finding method (Moris, 2014).
Intracranial pathology could either be a part of extra-intestinal manifestation in Crohn's disease or precede diagnosis (Jaussaud, 1999).

In one study "conducted to determine the frequency, spectrum and neurological disorder associated with ulcerative colitis (UC) and Crohn's disease found 3% of the cases involved in the study have neurological involvement (Lossos,1995).

In another study performed, did show "33.2% of patients with CD have neurological and neuropsychiatric complication "(Moris, 2014).

The neurological and neuropsychiatric features that found in patients with IBD are Cerebrovascular disease ,Cerebral infarction, Transient brain ischemia Cerebral venous

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thrombosis, Demyelinating disease ,Multiple sclerosis Asymptomatic focal white-matter lesions, Myelopathy, Optic neuritis Inflammatory pseudotumor, Epilepsy Seizures ,Psychosis, Chorea, Major depression ,Autonomic nervous system dysfunction ,Vasculitis of the central nervous system, Restless legs syndrome, Sleep disruption ,Headache ,Cranial neuropathies ,Melkersson-Rosenthal syndrome ,Sensorineural hearing loss Ischemic optic neuropathy ,Bell's palsy Neuromuscular diseases ,Myasthenia gravis, Myopathy Dermatomyositis ,Polymyositis Vacuolar myopathy Peripheral neuropathy, Sensory large-fiber polyneuropathy ,Small-fiber polyneuropathy ,Acute and chronic immune-mediated neuropathies Monophasic immune ,radiculoplexus neuropathy Chronic distal sensorimotor polyneuropathy Mononeuritis multiplex (Moris,2014).

However, the prevalence of meningioma which was found on incidental finding on Brain MRI in general population was 1.1% in women and 0.7% in men in study in study performed on people who were 45 years of age or older (Vernooij, 2007)

Our patient was 53 years old female with no previous neurological disease was found to have meningioma on CT head, which was confirmed on the MRI on the bases of clinical suspicion. The patient had the surgical removal and had full recovery after that.

Conclusion

Whether the brain tumour found in our patient was an incidental finding or related to her CD as an extra intestinal feature remain unclear.

Further case reports and further studies needs to be conducted to establish if there is any connection between the meningioma and CD.

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