Capsule endoscopy : diagnosis of intestinal localisation of systemic follicular B-cell non-Hodgkin lymphoma

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Abstract

We report the case of a 58 year old man with occult obscure gastro-intestinal bleeding (OGIB) without other significant symptoms, in which systemic localisation of follicular B-cell non-Hodgkin lymphoma was discovered trough capsule endoscopy.

This case reflects the clinical significance of performing capsule endoscopy in patients with OGIB. (Acta gastroenterol. belg., **2020**, 83, **73-75**).

Key words : case report, capsule endoscopy, occult gastrointestinal blood loss, non-Hodgkin lymphoma, device-assisted enteroscopy

Introduction

Obscure gastrointestinal bleeding (OGIB) is a clinical syndrome for which the gastroenterologist is visited. OGIB is defined as gastro-intestinal blood loss together with negative upper and lower endoscopy like gastro- and colonoscopy. Occult OGIB is defined as an obscure bleeding without macroscopic blood in faecal excrements. When upper endoscopy and colonoscopy fail to find a bleeding focus, further investigations are recommended. In this case, wireless capsule endoscopy (CE) was used as first additional investigation of the small bowel. OGIB is the most common indication for this technique (1). Afterwards, double balloon enteroscopy (DBE) was used as second investigation.

There are several studies comparing the diagnostic yield of CE with device assisted enteroscopy (DAE) for OGIB. Some studies have shown superiority of CE over DAE for detecting lesions (2,3). Others stated that DAE was superior over CE in finding new bleeding lesions within who patients had suffered from previous obscure bleeding (4). However, others conclude that there is no significant difference between the diagnostic yield of CE and DAE. They assume that mainly the type of lesion can modify the values of the diagnostic yield (5).

To clarify the employment of CE and DAE in OGIB, the European society of Gastrointestinal Endoscopy issued the following guidelines for diagnosis and treatment of OGIB :

1. Small-bowel video capsule endoscopy is recommended as the first-line investigation in patients with obscure gastrointestinal bleeding (strong recommendation, moderate quality evidence).

2. In patients with positive findings from small-bowel capsule endoscopy, it is recommended to use device-assisted enteroscopy to confirm and possibly treat lesions identified by capsule endoscopy (strong recommendation, high quality evidence) (6).

In this case, ESGE guidelines have been followed.

Case report

A 58 year asymptomatic male patient was included in the Flemish colorectal screening programme and referred to our gastroenterology department due a positive faecal occult blood test. He did not mention any abdominal pain, had a normal defecation pattern and no recent changes is his faecal pattern nor consistency. There was no macroscopic blood in his stool. He did not report any weight loss, loss of appetite, fever or excessive night sweating. Familial risk assessment of familial/hereditary colorectal carcinomatosis, inflammatory bowel disease and celiac disease was negative. Clinical investigations did not show any abnormalities. There was a normal iron status and no anaemia. Esophagogastroduodenoscopy and colonoscopy were performed to exclude the more common causes of gastrointestinal bleeding.

Esophagogastroduodenoscopy showed an active gastritis and Barrett's oesophagus. Revision colonoscopy was needed due to suboptimal preparation. The second colonoscopy showed a floppy colon. There was no explanation for positive FOB test. Therefore, capsule endoscopy was performed to find the focus of this obscure-occult bleeding.

This revealed multiple small jejunal polyps in the whole length of the jejunum with a mass effect at the proximal jejunum (ex. Fig. 1). Patient was referred for DBE with biopsy. Biopsy confirmed multiple small jejunal polyps throughout the progression of the jejunum, with at least 3 to 4 locations with submucosal mass and focal disruption of the normal mucosal pattern. These findings were suggestive for underlying malignancy (ex. Fig.

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Submission date : 15/11/2018
Acceptance date : 22/01/2019

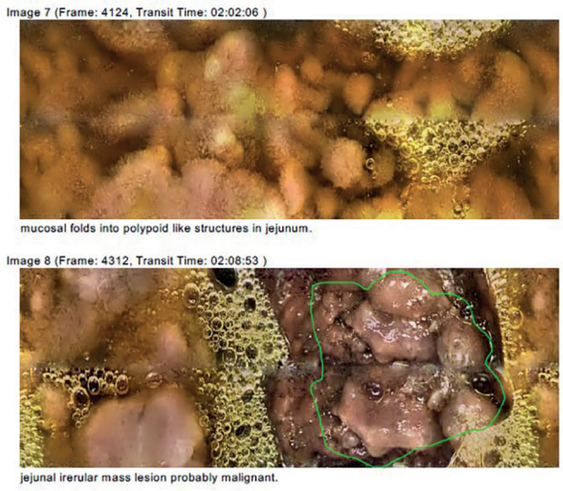

Figure 1. — Images of capsule endoscopy. Jejunal irregular mass lesion, probably malignant. AZ Groeninge capsule endoscopy report, MD Van Moerkercke.

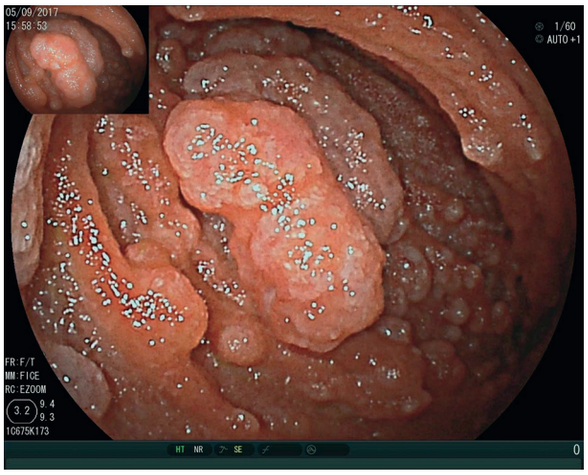

Figure 2. — Image of enteroscopy. Submucosal mass, with focal disruption of normal mucosa AZ Maria Middelares DBE report, MD Dewint.

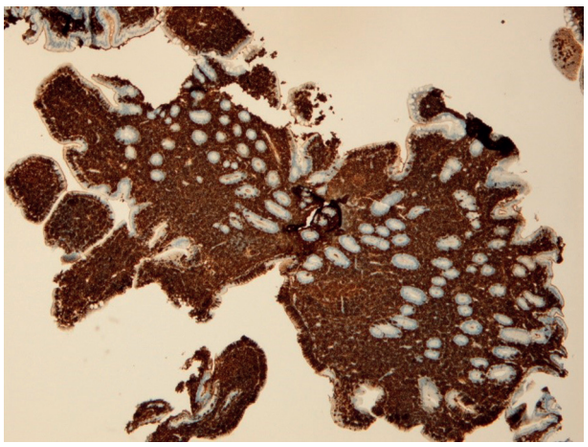

Figure 3. — Image of anatomic pathology. Strong diffuse CD-20-expression in tumoral B-celproliferation. AZ Maria Middelares, pathology report, MD Gabriel.

Table 1. — **Ann-Arbor staging for lymphomas**

Stage	**Definition**
I	Involvement of a single lymph node region or of a single extralymphatic organ or site
II	Involvement of two or more lymph node regions on the same side of the diaphragm or localised involvement of an extralymphatic organ or site
III	Involvement of lymph node regions or structures on both sides of the diaphragm, which may by accompanied by involvement of the spleen (III S) or by localized involvement of an extralymphatic organ (III E) or both (III SE)
IV	Diffuse or disseminated involvement of one or more extralymphatic organs

Annotation	**Definition**
A	No B symptoms
B	At least one of the following within last 6 months a. Weight loss >10% b. Unexplained persistent or recurrent fever c. Drenching night sweats
X	Bulky disease (>6cm in diameter or mass >1/3 mediastinal diameter)
E	Extension to a single extralymphatic organ adjacent to a known involved site

2). The diagnosis of intestinal lymphoma was assumed, based on the multifocal presence of mucosal alterations and presence of submucosal mass. Anatomopathological investigations of the biopsies confirmed diagnosis of follicular B-Cell non-Hodgkin lymphoma (NHL). However, the lymphoma was classified as an intestinal localisation of a systemic B-cell follicular NHL. The findings were classified immunophenotypically as a B-cell follicular lymphoma grade I (ex. Fig. 3).

Patient was referred to the Department of Haematology. PET/CT-imaging was performed to complete staging. Because no suspicious disease activity was found above the diaphragm, Ann-Arbor stage II-III was concluded (ex. Table 1). There were no clinical biochemical arguments to start treatment. A 'Watchful Waiting'-strategy was applied.

After approximately 1 year, the patient started to show vague pain symptoms in his right flank. No B-symptoms were present. CT-imaging showed pathological enlarged lymph nodes on both sides of the diaphragm. A solid mass was visualised around the mesentery in the right iliac fossa region. Diagnosis was confirmed trough abdominal exeresis of a mesenteric lymph node. Staging was classified as Ann-Arbor stage IVA (ex. Table 1). Monoclonal antibody Rituximab was started as a monotherapy. After four treatments, chemotherapeutic scheme CHOP (cyclophosphamide – doxorubicin – vincristine – prednisolone) was associated.

Conflict of interest

No conflicts of interest stated.

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