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Letter to the Editor

Heat shock proteins and ulcerative colitis: The start of a new era?



Dear Sir,

We read with great interest the article written by Abou El Azm and coworkers, published in the last issue of the Arab Journal of Gastroenterology [1]. In this article, the authors investigated the molecular expression of heat shock proteins (HSP) 70 and 90 in relation to the grades of inflammation and dysplasia in patients with ulcerative colitis (UC) before and after treatment.

In this study, in agreement with other published studies [2–4], the authors not only found a potential role for HSP 70 and HSP 90 for assessment of the activity and prognosis of UC, but also such markers predicted the presence of dysplasia and differentiated it from reactive atypia [1].

HSP had been found not only a marker of active disease, thus considering UC as a “chaperonopathy by mistake”, but also show a key role in the psychosocial setting in which inflammatory bowel diseases manifest themselves [5]. Furthermore, they could represent a new diagnostic tool to differentiate the different phenotypes of UC, thus allowing to tailor a targeted approach to better manage UC patients [6].

However, some unresolved issues still remain about the potential roles of HSP in both the acute and the longstanding disease. First, it should be interesting to assess the role of HSP in the infections associated to UC flares, like *Clostridium difficile* and Cytomegalovirus (CMV) infections. In fact, HSP could be investigated as a further marker of inflammation in case of severe and steroid-refractory disease; with regard to CMV infection, mucosal levels of HSP could differentiate when CMV plays a role of direct pathogen or when it represents merely a “silent bystander”. Second, in longstanding UC, an integrated approach of colorectal cancer surveillance, by using the advanced endoscopic imaging together with mucosal markers, like HSP, could result in being markedly helpful, both to clinicians and pathologist. In fact, current guidelines recommend that image-enhanced endoscopy (IEE) may increase the yield of detection of dysplasia, thus representing a reasonable alternative to the random sampling of colon using standard white light [7]. The use of both IEE and new biomarkers, like HSP, predicting future occurrence of colonic neoplasia, could lead to a more centralised approach of UC patients, in which a “biomarker-based surveillance” might play a pivotal role.

Conflict of interest

None declared for all the authors.

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