Letter to the Editor

[The Editor is not responsible for the views expressed by the correspondents]

Association of Strongyloides stercoralis with Gastric Adenocarcinoma — Is There a Role of Immune Response?

Sir, — Strongyloidiasis is a disease caused by an intestinal nematode called Strongyloides stercoralis. It spreads through soil and is generally found in tropical and subtropical areas. It is estimated that this disease affects around 30 to 100 million people globally[1]. The life cycle of S Stercoralis can occur through direct, indirect, and autoinfection. In the direct cycle, rhabditiform larvae in the soil grow into filariform larvae and infect new hosts by penetrating the skin. The larvae then travel to the lungs and the gastrointestinal system. In the indirect cycle, eggs hatch in the soil and develop into infective larvae, which can live in the soil or re-enter the host through the skin around the anus, leading to autoinfection[1]. It is surprising to note an association between this nematode and carcinoma.

Few case reports describe the coexistence of S Stercoralis infection with gastric adenocarcinoma[1,2]. In these reports, S. stercoralis was identified in the gastric and duodenal mucosa of patients diagnosed with gastric adenocarcinoma. The co-occurrence of Strongyloides stercoralis and gastric adenocarcinoma or other carcinomas are explained by the immunocompromised state of an individual. However, the causal relationship of S Stercolaris and carcinoma is not established and the mechanisms by which S Stercoralis could potentially contribute to gastric adenocarcinoma development are poorly understood.

The literature also suggests considering S Stercoralis infection in the differential diagnosis of gastric masses, especially in endemic regions[3,4]. Numerous reports describe the coexistence of S Stercoralis infection with gastric and intestinal adenocarcinomas[1,5,6]. S Stercoralis can cause systemic and gastrointestinal disease, particularly in immunocompromised patients, and can be associated with gastrointestinal symptoms that might mimic or coincide with those of malignancies[1,2].

The inflammatory response triggered by S Stercoralis, including eosinophilia and eosinophil activation, is associated with intestinal inflammation[7]. This also gives insight into the risk of developing severe strongyloidiasis syndrome in immunocompromised individuals[7]. Chronic inflammation is a recognised risk factor for various cancers, including gastric adenocarcinoma, due to the potential for inflammatory cells and cytokines to induce DNA damage, promote angiogenesis, and support a microenvironment conducive to tumour growth[8-10]. However, the specific immune responses to S Stercoralis and how they might intersect with the inflammatory pathways implicated in gastric adenocarcinoma pathogenesis are not fully understood. Also, the specific link between Strongyloides stercoralis-induced inflammation and gastric adenocarcinoma needs validation.

To conclude, clinicians should consider the possibility of strongyloidiasis in immunocompromised patients presenting with gastrointestinal symptoms, even when malignancy is suspected or confirmed. While chronic inflammation related to parasitic infections could contribute to carcinogenesis, the current medical literature does not provide evidence of a direct role of the immune response to S Stercoralis infection in the pathogenesis of gastric adenocarcinoma. Further research would be necessary to explore this potential link. Clinicians should consider the possibility of strongyloidiasis in immunocompromised patients presenting with gastrointestinal symptoms, even when malignancy is suspected or confirmed.

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