Opinion

Is there a link between colonic diverticula and thyroid disorder?

Keywords: Thyroid disorder; Colon; Diverticula; TSH

Opinion

Although colonic diverticula is a common problem, the exact pathogenesis is not exactly defined. 'Low dietary fiber' theory (low stool volume and increased luminal pressure) and 'thickening of muscle wall' (high proline from protein rich western diet) are the two most commonly accepted mechanisms.[1] Nevertheless, clarification of exact pathogenesis of colonic diverticula needs more and diverse epidemiological data. In this regard, we checked thyroid stimulating hormone (TSH) levels in our consecutive 267patients with colonic diverticula. 21 of 267patients (7.9%) had TSH levels of less than lower normal limit (<0.35mIU/ml) and 15patients (5.6%) had higher TSH levels than upper normal limit (>5.5mIU/ml). Rest of the patients had TSH levels within normal range (0.35-5.5mIU/ml).

The NHANES III study including the data of 17,353subjects, hypothyroidism was found in 4.6% and hyperthyroidism in 1.3% of subjects.[2] Nevertheless, Our data show that the patients with colonic diverticula have higher prevalence of thyroid disorders compared to the overall population. Because, 13.5% of our patients with colonic diverticula had abnormal TSH levels either lower or higher.

Thyroid disorders can lead to several dysfunctions throughout the body including smooth muscle or vascular endothelium.[3] We propose that thyroid disorders might play a role on the colonic mucosa and smooth muscle in diverticula pathogenesis. No doubt, further studies are necessary to clarify the link between colonic diverticula and thyroid disorders.

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Conflicts of interest

The authors declare that there are no conflicts of interest.

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Levent Filik, Mehmet N Aktas
Department of Gastroenterology, Ankara Research Hospital, Turkey

Correspondence: Levent Filik, Associate Professor of Gastroenterology, Ankara Research Hospital Gastroenterology Clinic, Ulucanlar, Ankara, TR06600, Turkey,
Email leventfilik@yahoo.co.uk

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References

1. Stollman N, Raskin JB. Diverticular disease of the colon. *Lancet*. 2004;363:631–639.
2. Hollowell JG, Staehling NW, Flanders WD, et al. Serum TSH, T4, and thyroid antibodies in the United States population (1988 to 1994): National Health and Nutrition Examination Survey (NHANES III). *J Clin Endocrinol Metab*. 2002;87(2):489–499.
3. Cai Y, Manio MM, Leung GP, et al. Thyroid hormone affects both endothelial and vascular smooth muscle cells in rat arteries. *Eur J Pharmacol*. 2015;747(15):18–28.