# Comments on 'Recurrent sigmoid volvulus in a patient with Parkinson's disease' 

Sabri Selcuk Atamanalp ${ }^{1}{ }^{(1)}$

Received: 16 June 2020 / Accepted: 20 June 2020 / Published online: 26 June 2020
© Springer-Verlag GmbH Germany, part of Springer Nature 2020

## Dear Editor,

I read with interest the article by Tateno et al. [1], who reported a patient with recurrent sigmoid volvulus (SV) caused by Parkinson's disease (PD). Although SV is a rare intestinal obstruction form worldwide, it is endemic in Turkey, my practicing area. I and my colleagues have a 1030case experience with SV over a 54 -year period between June 1966 and July 2020, which is the largest single-center SV series in the world [2]. Here, in light of our comprehensive experience, I would like to discuss the relationship between PD and primary or recurrent SV.

First, although the role of PD in the development of SV is not a mystery, collaboration on this issue is relatively rare worldwide with a few tens of cases reported to date $[1,3]$. For this reason, the pathophysiology is not clearly identified. Dolichosigmoid, the presence of a long and dilated sigmoid colon with a long mesentery, is the most common anatomical predisposition in SV [4]. As the authors declared, PD actually causes neuronal loss in the myenteric plexus in addition to its destructive effects on extraenteric systems including spinal cord, brainstem, and basal ganglia [1]. Additionally, some anti-parkinsonian drugs cause a delay in bowel transportation, resulting in pseudo-obstruction [5]. Moreover, excessive use of some laxatives and enemas lead to damage in myenteric neurons, resulting in chronic constipation $[4,5]$. In the end, chronic distention worsens the elastogenesis of the colonic wall, resulting in enlargement and elongation of the sigmoid colon.

Second, the incidence of SV in patients with PD is reported to be distinctly higher in sporadic areas [1].

This is a comment on manuscript https://doi.org/10.1007/s1028 6-019-00658-0.

However, this cause and effect relation ramps down in endemic regions, even if effective. In our 1030-case SV series, 7 patients ( $0.7 \%$ ) had PD, all receiving anti-parkinsonian drugs; this incidence is relatively higher than that of the patients with PD in general, which is $0.2 \%$. In my opinion, in endemic regions, the high percentage of SV trivializes the incidence of SV with PD.

Finally, one of our patients with PD had recurrent SV, which is the second case reported to date [1, 2]. In my opinion, the aforementioned factors affecting the development of primary SV are also responsible for the development of recurrent SV in patients with PD.

I congratulate the authors for their interesting presentation, and I wonder about their opinion on my comments.

## Compliance with ethical standards

Conflict of interest The author declares that he has no conflict of interest.

## References

1. Tateno F, Sakakibara R, Aiba Y, Ogata T, Katsumata M, Matsuoka Y (2020) Recurrent sigmoid volvulus in a patient with Parkinson's disease. Clin Auton Res 30:181-182
2. Atamanalp SS (2019) Sigmoid volvulus: the first one thou-sand-case single center series in the world. Eur J Emerg Surg 45:175-176
3. Bauman ZM, Evans CH (2018) Volvulus. Surg Clin N Am 98:973-993
4. Raveenthiran V, Madiba TE, Atamanalp SS, De U (2010) Volvulus of the sigmoid colon. Colorectal Dis 12:e1-e17
5. Avots-Avotins KV, Waugh DE (1982) Colon volvulus and geriatric patient. Surg Clin N Am 62:249-260

Sabri Selcuk Atamanalp
ssa@atauni.edu.tr
1 Department of General Surgery, Faculty of Medicine, Ataturk University, 25040 Erzurum, Turkey

