

Comment on “factors associated with severity of orbitopathy in patients with Graves’ disease”

Sir,

We thank Baretic Maja *et al.* for their comments on the study “Factors associated with severity of orbitopathy in patients with Graves’ disease” published in Taiwan J Ophthalmol. Smoking has been consistently noted as a risk factor for Graves’ orbitopathy (GO)^[1-4] perhaps by causing tissue hypoxia or simply direct inflammation.^[4,5] In our study, current smoking increased the risk of severe GO by 3.35 times.^[6] Smoking predisposes to severe GO, increases the progression or de novo occurrence of GO after radioiodine treatment, delays or worsens the outcome of immunosuppressive treatment for GO. The risk is proportional to the number of cigarettes smoked per day, and former smokers have a significantly lower risk than current smokers, even after adjusting for lifetime cigarette consumption.^[7] Refraining from smoking might reduce the risk of developing GO.^[8]

Cigarette smoking also predisposes to Graves’ disease,^[9] but also is significantly associated with relapse of Graves’ disease.^[10] Smoking and the presence of GO predicted the slow disappearance of thyrotropin receptor antibody.^[11]

The American Thyroid Association recommends that all clinicians advise patients with Graves’ disease to stop smoking and refer them to a structured smoking cessation program. As both firsthand and secondhand smoking increase GO risk, patients exposed to secondhand smoke should be identified and advised of its negative impact.^[11] European group on Graves’ orbitopathy (EUGOGO) also recommend that all patients with Graves’ disease, to refrain from smoking, irrespective of the presence or absence of GO.^[8]

Baretic Maja *et al.* in their online survey on “Awareness of EUGOGO guidelines and attitudes regarding smoking in Graves’ orbitopathy in Croatia” among members of Croatian national societies found that 26% of the participants were not using EUGOGO guidelines and even 30% of all participants did not recognize smoking as risk factors determining the outcome of the disease. We agree with the author that there is an urgent need for recognition among clinicians as well as sensitizing patients regarding smoking cessation in patients with Graves’ disease, as

smoking is the modifiable risk factor and also to refer patients to a structured smoking cessation program.

Financial support and sponsorship

Nil.

Conflicts of interest

The authors declare that there are no conflicts of interests of this paper.

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Submission: 28-12-2020

Accepted: 05-01-2021

Published: 26-02-2021

References

1. Thornton J, Kelly SP, Harrison RA, Edwards R. Cigarette smoking and thyroid eye disease: A systematic review. *Eye (Lond)* 2007;21:1135-45.
2. Stan MN, Bahn RS. Risk factors for development or deterioration of Graves’ ophthalmopathy. *Thyroid* 2010;20:777-83.
3. Khong JJ, Finch S, De Silva C, Rylander S, Craig JE, Selva D, *et al.* Risk Factors for Graves’ Orbitopathy; the Australian Thyroid-Associated Orbitopathy Research (ATOR) study. *J Clin Endocrinol Metab* 2016;101:2711-20.
4. Shine B, Fells P, Edwards OM, Weetman AP. Association between Graves’ ophthalmopathy and smoking. *lancet* 1990;335:1261-3.
5. Wiersinga WM. Smoking and thyroid. *Clin Endocrinol (Oxf)* 2013;79:145-51.
6. Nabi T, Rafiq N. Factors associated with severity of orbitopathy in patients with Graves’ disease. *Taiwan J Ophthalmol* 2020;10:197-202.
7. Pfeilschifter J, Ziegler R. Smoking and endocrine ophthalmopathy: Impact of smoking severity and current vs lifetime cigarette consumption. *Clin Endocrinol (Oxf)* 1996;45:477-81.
8. Bartalena L, Baldeschi L, Boboridis K, Eckstein A, Kahaly GJ, Marcocci C, *et al.* The 2016 European Thyroid Association/ European Group on Graves’ orbitopathy guidelines for the management of graves’ orbitopathy. *Eur Thyroid J* 2016;5:9-26.
9. Brix TH, Hansen PS, Kyvik KO, Hegedüs L. Cigarette smoking

and risk of clinically overt thyroid disease: A population-based twin case-control study. Arch Intern Med 2000;160:661-6.

10. Kahaly GJ, Bartalena L, Hegedüs L, Leenhardt L, Poppe K, Pearce SH. 2018 European thyroid association guideline for the management of graves' hyperthyroidism. Eur Thyroid J 2018;7:167-86.
11. Ross DS, Burch HB, Cooper DS, Greenlee MC, Laurberg P, Maia AL, *et al.* 2016 American thyroid association guidelines for diagnosis and management of hyperthyroidism and other causes of thyrotoxicosis. Thyroid 2016;26:1343-421.

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Access this article online	
Quick Response Code:	Website: www.e-tjo.org
	DOI: 10.4103/tjo.tjo_3_21

How to cite this article: Nabi T, Rafiq N. Comment on "factors associated with severity of orbitopathy in patients with Graves' disease. Taiwan J Ophthalmol 2022;12:118-9.

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