

ACE-Inhibitors-Related Angioedema: Not always Allergy

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Background/aims: Angioedema (AE) is a rare potentially life-threatening adverse reaction to ACE-inhibitors treatment (ACEI-AE), with estimated prevalence of 0.1-0.7% [1]. ACEI-AE consists of sudden non-itchy painless edema, commonly affecting neck-head district.

Patients and methods: Patients with history of AE following ACEI treatment have been enrolled. Demographics and clinical features were collected through medical records and direct interview. 66 cases of ACEI-AE were collected, whose characteristics are summarized in **Table 1**.

Results: AE attacks started from 20 years to few days, in one case at first drug assumption. Frequency varied from few sporadic events to 3-4 attacks/month. 30% suffered at least an episode of laryngeal involvement with higher hospitalization (75% vs. 50%). In 19 patients (28.7%) discontinuation of ACEI did not lead to the remission of angioedema, although a decrease in severity and frequency was observed. In one case icatibant was prescribed and two patients started prophylaxis with tranexamic acid. 17 patients were switched to angiotensin receptor-blockers, which showed no increased AE recurrence risk respect to other anti-hypertensive (17.6% vs. 30.9%) [2].

Discussion: ACEI are largely prescribed drugs for hypertension worldwide. AE is a rare event related to therapy. Attacks are unpredictable and potentially life-threatening therefore physicians should suspect and identify such occurrence.

Table 1

Parameters	Results	
Patients - n	66	
Female:Male	26:40	
Age of onset; median (r)	60 (40-82)	
Age of diagnosis; median (r)	64 (42-90)	
Diagnostic delay ≥ 5 years; n (%)	14 (21%)	
ACEI-AE onset since therapy start - years; average (r)	4.5 (0-20)	
Reported AE episodes per patient; average (r)	3 (1-180)	
Duration AE episodes - hours; average (r)	32 (0.5-96)	
Most involved sites – (%)	Lips	75.7%
	Face	51.5%
	Tongue	49.9%
Most involved ACE-I – (%)	Ramipril	33.3%
	Enalapril	25.7%
	Zofenopril	18.1%
Associated symptoms (itch, rash, flushing)	All	26%
- %	ASA	37%
	No ASA	18%
Atopy (allergy to drug/pollen/food) – n - %	11 (16,6%)	

References

1. Montinaro V, Cicardi M (2020) ACE inhibitor-mediated angioedema. *Int Immunopharmacol* 78: 106081.
2. Carucci L, Bova M, Petraroli A, Ferrara AL, Sutic A, et al. (2020) Angiotensin-converting enzyme inhibitor-associated angioedema in a cohort of Caucasian patients: from bed to bench. *J Investig Allergol Clin Immunol* 30: 272-280.