

EFFECT OF SYSTEMIC DISEASES ON THE SIDE EFFECT PROFILES OF ANTICHOLINERGICS IN OVERACTIVE BLADDER PATIENTS

Hypothesis / aims of study

Dry mouth is a common side effect of anticholinergics in overactive bladder(OAB) patients. In OAB patients with systemic diseases, dry mouth could be more prominent than non-systemic disease patients. We evaluated if systemic diseases affect dry mouth before and after anticholinergics in OAB patients.

Study design, materials and methods

Between Jun 2012 and Dec 2012, 104 OAB patients were enrolled in this study. Seventy(67.3%) patients had systemic diseases(cardiovascular, hepatobiliary, immunologic et al., group I) and 34(32.7%) patients didn't(group II). Male patients were 40(38.5%) and female patients were 64(61.5%). Before and 3 months after anticholinergics treatment, OAB-SS(symptoms score), visual analogue scale (VAS) for dry mouth, body weight and height for BMI(body mass index) were investigated. Clinical parameters of systemic disease group (I) was compared with non-systemic disease group (II) and after age-adjustment comparison was made again. Statistical program was SPSS 12.0 for Windows and statistical methods were independent T-test and ANCOVA. P-values less than 0.05 were regarded as significant.

Results

Age was 64.1 ± 10.2 (range: 43-82) for group I and 56.7 ± 11.6 (range: 38-80) for group II ($p=0.001$). Symptoms duration was 83.5 ± 68.8 (range: 3-240) months for group I and 49.3 ± 44.7 (range: 3-120) for group II ($p=0.003$). Baseline VAS scale of group I (15.4 ± 19.7 , range: 0-50) was higher than group II (3.3 ± 6.1 , range: 0-20) ($p=0.000$). After age-adjustment, the difference of baseline VAS scale between 2 groups was still significant ($p=0.023$).

Follow-up VAS scale of group I (33.1 ± 26.4 , range: 0-90) was still higher than that of group II (21.9 ± 20.7 , range: 0-50) ($p=0.035$). But, the amount of change of VAS score of group I (17.0 ± 16.2 , range: 0-60) was not different from that of group II (12.7 ± 15.5 , range: 0-40) ($p=0.233$).

BMI of group I (23.8 ± 3.5 , range: 16.4-31.6) was higher than group II (22.3 ± 1.9 , range: 17.6-26.5) ($p=0.007$) and after adjustment for BMI, VAS scale of group I was still higher than group II ($p=0.002$).

Interpretation of results

OAB patients with systemic diseases have higher baseline and after-anticholinergics treatment dry mouth rate than OAB only patients even after adjustment of age and BMI factor. But, the amount of changes of dry mouth severity after anticholinergics were not different between systemic disease group and OAB only group.

Concluding message

As well as well-known age factor, systemic disease itself affects baseline dry mouth and this high baseline xerostomia rate could be the leading cause of significant side effect after anticholinergics in OAB patients with systemic diseases.

Table 1. OAB with systemic diseases have higher baseline and after-treatment dry mouth rate even after age-adjustment.

		OAB with systemic diseases(n=70)	OAB only(n=34)	p-value
Age(yrs)		64.1 ± 10.2	56.7 ± 11.6	0.001
Sx duration(months)		83.5 ± 68.8	49.3 ± 44.7	0.003
BMI(kg/m ²)		23.8 ± 3.5	22.3 ± 1.9	0.007
VAS score	Baseline	15.4 ± 19.7	3.3 ± 6.1	0.000
	Age-adjusted difference			0.023
	Follow-up	33.1 ± 26.4	21.9 ± 20.7	0.035
	Amount of changes	17.0 ± 16.2	12.7 ± 15.5	0.233

OAB: Overactive Bladder, BMI: Body Mass Index, VAS: Visual Analogue Scale

References

1. Oefelein MG. Safety and tolerability profiles of anticholinergic agents used for the treatment of overactive bladder. *Drug Saf.* 2011;34(9):733-54
2. Wein AJ. Diagnosis and treatment of the overactive bladder. *Urology.* 2003;62(5 Suppl 2):20-7

Disclosures

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