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Objective

To check the appropriate prescribing practice, and to assess the effectiveness and safety of omalizumab.

Materials and methods

- A retrospective study from January 2014 to August 2015, including all patients treated with Omalizumab (15 patients).
- Time of follow-up : 16 and 32 weeks when possible.
- **Variables included:** sex, age, weight, Ig-E level, omalizumab dose and other medication used before and after therapy, prick test of commercially allergens, volume exhaled during the first second of a forced expiration FEV1(%), exhaled nitric oxide FENO (ppb), exacerbation needing oral corticosteroid use, hospital admissions, symptoms experienced during the day and night, adverse event due to omalizumab and concomitant diseases relevant for treatment outcomes.

Results and Discussion

BASELINE CHARACTERISTICS	
Patients	15 (60% female)
Median (Md) age	31 (minimum 8- maximum 75)
Positive Prick Test	80%
Md Ig-E level (UI/mL)	56 (51-5000) IQR (interquartile range): 195-1317
Md FEV1 (%)	76 (43-100)
Md FENO (ppb)	45 (19-101)
Exacerbations:	
<6/year	87%
≥6/year	46%
Symptoms during the day versus night	93 vs 79%
Obstructive rhinitis	53%
High-dose Long acting β 2-agonist (LABA)	100%
High-dose Inhaled Costicosteroid (IC)	86,7%
Oral Costicosteroid (OC)	53,3%
Nasal Costicosteroid (NC)	66,7%
Oral antihistamine (AH)	40%

- ✓ **Optimal dose of omalizumab** according to product information in 73,3% of patients. In three off-label cases Ig-E level was too high and one patient had overweight.
- ✓ **Week 16 analysis** showed that 75% (n=3) of patients with high level exacerbations had recorded no events during this period, except one, who did not improved until week 32 (baseline IgE 5000 UI/mL).
- ✓ **FEV1 improved** on 6 of 7 (85,7%) patients (Md 12; IQR 6,8 -12,7; IC95% -12,77-15,74). Moreover, IC, OC and LABA dose were reduced on 50, 37,5 and 20% respectively.
- ✓ **Information of week 32 analysis** was available only for 2 patients.
- ✓ **Adverse events** were observed in 30% of patients (hypotension, dyspnoea after 2nd dose which required treatment interruption, and chest oppression).

Conclusions

- ❖ Conclude that our hospital properly identify patients who could benefit from Omalizumab but should insist on follow up after initiation therapy although most of them have clinical improvement (because change in FEV1 is not statistically significant nor conclusive).

Aknowledgments

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