## 1317 | Refractory chronic spontaneous urticaria in melanoma patient under pembrolizumab successfully treated with omalizumab

Rodrigues MA[1]; Lobo I[1]; Selores M[1,2,3]; Velho GC[1,2,3]

[1]*Serviço de Dermatologia do Centro Hospitalar e Universitário do Porto, Porto, Portugal;* [2]*Instituto de Ciências Biomédicas Abel Salazar. Universidade do Porto, Porto, Portugal;* [3]*Dermatology Research Unit, Centro Hospitalar do Porto, Porto, Portugal*

**Case Report/Background**: Chronic spontaneous urticaria is defined by the presence of wheals for a period exceeding 6 weeks, independently of any exogenous stimulus. It is associated with an important reduction in quality of life.

First line therapy remains second (or third) generation H1 antagonists, with high dosage (i.e. 4 times a day) sometimes being necessary to achieve symptoms control. In nonresponsive patients, omalizumab (an anti-IgE antibody) should be employed.

Although omalizumab underwent several clinical trials until it's approval, patients included in this trials followed restrict inclusion and exclusion criteria. Real life clinical cases many times pose challenges to the decision of initiating therapy.

**Methods**: Case presentation.

**Results**: A 57 years old female patient was diagnosed with metastasized malignant melanoma with unknown primary (BRAF negative) in June 2019. In August 2019, she presented to the dermatology consult with generalized, pruritic, evanescing, erythematous wheals for the past 6 weeks. Blood tests (hemogram, basic chemistry, thyroid) were within normal limits. A clinical diagnosis of chronic spontaneous urticaria was made. Maximum H1 antagonists dose (bilastine 4 times a day) showed no improvement in symptoms, with Urticaria Activity Score summed over 7 days (UAS7) of 42/42. In September 2019 she started melanoma treatment with pembrolizumab, with no alteration in UAS7. In October 2019 omalizumab was started at half a dose (150 mg, 4/4 weeks). At the second dose, the patient reported complete resolution of symptoms (UAS7 of 0/42). At 3 months of follow-up, she remains in pembrolizumab treatment for her melanoma, with complete resolution of urticaria symptoms. No side effects were noted.

**Conclusion**: An association between chronic spontaneous urticaria and neoplasia remains controversial, but no association with melanoma has been reported.

This case represented a challenge due the refractory nature of the chronic spontaneous urticaria in a patient undergoing immunotherapy with pembrolizumab for her melanoma. In our review of literature we could not find previous experience with omalizumab in patients on immunotherapy. Concerns regarding drug interaction with reduction of the immunotherapy effect lead to the decision to start omalizumab treatment with half the dose.

The complete resolution of urticaria symptoms, without side effects during follow-up reinforces the efficacy as well as favourable safety profile of omalizumab.

## 1342 | Real world data of Canadians living with hereditary angioedema (HAE): Need for innovative, newer prophylactic and subcutaneous treatments

Badiou J[1]; Rowe A[1]; Dumbrille D[1]; Brosz K[1]; Bick R[2]; Cooper M[1]; Kelly S[3]; Yang WH[3,4]

[1]*Hereditary Angioedema Canada, Ottawa, Canada;* [2]*Health Policy Consultant, Markham, Canada;* [3]*Red Maple Trials, Ottawa, Canada;* [4]*Ottawa Allergy Research Corporation, Ottawa, Canada*

**Background**: Hereditary angioedema (HAE) is a rare inherited disorder affecting the production and/or function of C1-Esterase Inhibitor (C1INH) and leading to acute attacks of swelling which can be fatal if the oropharynx is affected. The timing and severity of an attack are unpredictable, potentially leading to stress, anxiety and depression.

**Method**: In 2019, HAE Canada conducted two online surveys to assess the challenges faced by HAE patients and their caregivers and to gain insight into their experience and expectations with new therapies, subcutaneous C1 esterase inhibitor (human plasma-derived, pasteurized, nanofiltered) and lanadelumab (fully human monoclonal antibody-plasma kallikrein inhibitor, subcutaneous) in particular.

**Results**: The first survey had 73 respondents: 68 (92%) were individuals with HAE, and 6 (8%) were caregivers. In response to the question "Do you have regular fear of unpredictable, debilitating attacks?" 50 of 68 respondents answered yes. Of these, 30% rated their fear as mild, 62% as moderate and 8% as severe. Sixty-three percent indicated that fear of attacks led to generalized anxiety. The majority of patients (91%) are treated with an IV medication indicated for acute treatment. When asked to rate attributes of new medications for HAE, 79% rated prophylactic administration and 76% rated subcutaneous delivery as extremely important. Eight participants (13%) had received treatment predominantly through participation in a clinical trial with lanadelumab, a newly approved medication for prophylaxis of HAE. Five considered it extremely effective in preventing attacks. Reported adverse events were headache (2/8) and pain at injection site (7/8). Both were scored as tolerable to very tolerable.

The second survey, intended to capture information about a new subcutaneous C1 esterase inhibitor, had 19 respondents, 3 of whom had received treatment. It was found to be "extremely effective" by all 3 respondents and significantly reduced attacks for 2 of them. Reported adverse events headache (1/3) and injection site reaction (2/3) scored as tolerable to very tolerable.

**Conclusion**: Prophylactic treatment which can reduce attacks and subcutaneous delivery are considered important by Canadian HAE patients. Two newly approved medications, subcutaneous C1 esterase inhibitor and lanadelumab, have these attributes.