

SUPPLEMENTARY MATERIAL

Table 1. Demographic and clinical characteristics of the sample (n = 88)

| Characteristics | |
|--|---|
| Age (mean \pm SD), (range) (y) | 44.6 \pm 14.9, (18-75) |
| Gender, n (%) | |
| Female, Male | 49 (55.7); 39 (44.3) |
| HAE-C1INH, type I, (N, %) | 87 (98.9) |
| HAE-C1INH, type II, (N, %) | 1 (1.1) |
| Family history of death by asphyxiation, N, (%) | 21/88 (23.9) |
| Age at onset of symptoms, mean \pm SD (range) (y) | 15.0 \pm 10.7 (1.0-57.0) |
| Age at diagnosis, mean \pm SD (range) (y) | 22.8 \pm 15.7 (1.0-68.0) |
| Diagnosis delay, mean \pm SD (range) (y) | 15.8 \pm 34.1 (-94.0-117.0) |
| Nr. of angioedema attacks in the last 6 months | |
| Mean \pm SD, range | 6.1 \pm 6.7 (0-33) |
| Median (Q1-Q3) | 4.0 (1-10) |
| Complement levels at diagnosis | |
| C4, (N), mean \pm SD (range) (mg/dL) | 79/88, 7.78 \pm 4.27 (1.56-19.30) |
| C1INHF (N), mean \pm SD (min-max) (%) | 37/88, 20.81 \pm 9.55 (4.50-46.41) |
| C1INH, (N), median (IQR) (mg/dL) | 72/88, 8.14 (5.60-11.15) |
| Complement levels (last 6 months) | |
| C4 (N, mean \pm SD, range) (mg/dL), | 86/88, 6.96 \pm 3.31 (1.53-15.60) |
| C1INHF, (N, mean \pm SD, range) (%) | 84/88, 21.32 \pm 10.22 (5.43-60.49) |
| C1INH (N, median, IQR) (mg/dL), | 81/88, 6.98 (4.95 – 8.61) |
| Total number of angioedema attacks in the last 6 months (N, %), (mean \pm SD, range) | |
| Peripheral (N, %), (mean \pm SD, range) | 508 (100.0), 6.1 \pm 6.7 (0-33) |
| Abdominal (N, %), (mean \pm SD, range) | 255 (50.2), 3.1 \pm 4.4, (0-18) |
| Multiple (N, %), (mean \pm SD, range) | 148 (29.1), 1.8 \pm 2.7 (0-12) |
| Genital (N, %), (mean \pm SD, range) | 66 (13.0), 0.8 \pm 1.8, (0-11) |
| Facial (N, %), (mean \pm SD, range) | 22 (4.3), 0.3 \pm 0.8, (0-6) |
| Upper airway (N, %), (mean \pm SD, range) | 10 (2.0), 0.1 \pm 0.4, (0-2) |
| HAE-AS (N), mean \pm SD, range | 84/88, 10.2 \pm 3.5, (1.0 – 15.6) |
| HAE-QoL (N), mean \pm SD, (range) | 84/88, 100.8 \pm 23.9, (32.0 - 134.0) |
| Drug used for LTP (N, %) | 29/88 (33.0) |
| Attenuated androgens (N, %) | 18 (21.6) |
| Antifibrinolitics (N, %) | 7 (8.0) |
| IV pdC1INH (N, %) | 4 (4.5) |

Abbreviations: C1INH: C1INH protein, C1INHF: C1 inhibitor functional activity. Normal range C4: 14-60 mg/dL, C1INH: 16-33mg/dL, C1INHF: >50%. IV, intravenous; LTP, Long term prophylaxis; pdC1INH, human plasma derived C1 esterase inhibitor concentrate; SC, subcutaneous; SD: standard deviation; y, year.

Table 2. Disease activity measured by HAE-AS in patients taking the different types of long-term prophylaxis.

| | Long term prophylaxis | | | | p |
|----------------------------|-----------------------|----------------------|-------------------|--------------|----------|
| | On-demand treatment | Attenuated androgens | Antifibrinolytics | pdC1INH | |
| HAE-AS (0-30 scale) | | | | | |
| N | 57/59 | 17/18 | 6/7 | 4/4 | 0.061 |
| Mean ± SD | 9.69 ± 3.53 | 10.25 ± 3.74 | 11.52 ± 2.32 | 14.07 ± 1.79 | |

IV: intravenous; pdC1INH: plasma derived C1 inhibitor

Table 3. Complement levels according to long term prophylaxis.

| | Long term prophylaxis in the last 6 months | | |
|------------------------------------|--|---------------------|----------|
| | No | Yes | p |
| C4 at diagnosis (mg/dL) | | | |
| N | 20/59 | 14/29 | 0.589 |
| Mean ± SD | 7.59 ± 4.17 | 8.15 ± 4.52 | |
| C1INHF at diagnosis (%) | | | |
| N | 20/59 | 14/29 | 0.228 |
| Mean ± SD | 19.32 ± 8.12 | 23.27 ± 11.42 | |
| C1INH at diagnosis (mg/dL) | | | |
| N | 47/59 | 25/29 | 0.948 |
| Median (IQR) | 8.00 (5.90 – 11.00) | 8.28 (4.81 – 11.30) | |
| C4 last 6 months (mg/dL) | | | |
| N | 58/59 | 26/29 | 0.796 |
| Mean ± SD | 6.90 ± 3.05 | 7.09 ± 3.85 | |
| C1INHF last 6 months (%) | | | |
| N | 58/59 | 26/29 | 0.179 |
| Mean ± SD | 20.32 ± 9.55 | 23.57 ± 11.46 | |
| C1INH last 6 months (mg/dL) | | | |
| N | 55/59 | 26/29 | 0.376 |
| Median (IQR) | 6.8 (4.86-8.39) | 7.78 (4.89-12.25) | |

IQR: Interquartile range; C4; complement fraction 4; C1INH: C1 inhibitor; C1INHF: C1 inhibitor functional activity.

Normal range C4: 14-60 mg/dL, C1INH: 16-33mg/dL, C1INHF: >50%.

Table 4. Complement values in patients taking the different drugs for long-term prophylaxis.

| | Long term prophylaxis (LTP) | | | | | |
|------------------------------------|-------------------------------|----------------------|---------------------|--------------------|-------|--|
| | Exclusive on-demand treatment | Attenuated androgens | Antifibrinolitics | pdC1INH | p | |
| C4 at diagnosis (mg/dL) | | | | | | |
| N | 20/59 | 10/18 | 3/7 | 1/4 | 0.167 | |
| Mean ± SD | 7.24 ± 3.97 | 10.26 ± 5.60 | 8.29 ± 4.59 | ** | | |
| C1INHF at diagnosis (%) | | | | | | |
| N | 20/59 | 10/18 | 3/7 | 1/4 | 0.694 | |
| Mean ± SD | 20.43 ± 7.79 | 23.10 ± 13.10 | 23.24 ± 9.11 | ** | | |
| C1INH at diagnosis (mg/dL) | | | | | | |
| N | 47/59 | 15/18 | 7/7 | 3/4 | 0.550 | |
| Median (Q1-Q3) | 8.00 (5.90-11.0) | 9.45 (6.40-11.80) | 4.80 (4.43 – 11.20) | 11.0 (4 - ***) | | |
| C4 last 6 months (mg/dL) | | | | | | |
| N | 58/59 | 16/18 | 6/7 | 4/4 | 0.270 | |
| Mean ± SD | 6.89 ± 3.05 | 5.75 ± 2.99 | 7.57 ± 4.44 | 9.85 ± 4.00 | | |
| C1INHF last 6 months (%) | | | | | | |
| N | 58/59 | 16/18 | 6/7 | 4/4 | 0.305 | |
| Mean ± SD | 20.31 ± 9.54 | 25.58 ± 12.91 | 19.12 ± 7.98 | 22.18 ± 9.51 | | |
| C1INH last 6 months (mg/dL) | | | | | | |
| N | 55/59 | 16/18 | 6/7 | 4/4 | 0.565 | |
| Median (Q1-Q3) | 6.80 (4.86-8.39) | 7.30 (4.72-13.43) | 6.96 (4.00-10.38) | 10.26 (5.85-12.35) | | |

LTP with pdC1INH was not taken into account because there was only one patient, C4 and C1INHF were considered as a constant for the comparison. * Undetermined.

C1INH: C1 inhibitor; C1INHF: C1 inhibitor functional activity; C4: complement fraction 4; LTP: long term prophylaxis; pdC1INH: plasma derived C1 inhibitor.