Table 1 - Demographic and clinical characteristics of the population

|  |  |
| --- | --- |
| **Demographic and clinical characteristics of the population** | |
| ***Characteristics*** | ***Nº patients (%)*** |
| **Number of patients** | 169 (100) |
| **Age (years)** |  |
| mean±SD | 52±20 |
| < 1 | 0 (0) |
| 1 - 4 | 0 (0) |
| 5 - 9 | 2 (1.2) |
| 10 - 14 | 2 (1.2) |
| 15 - 24 | 10 (5.9) |
| 25 - 44 | 45 (26.6) |
| 45 - 64 | 49 (29) |
| 65 - 74 | 29 (17.2) |
| 75 - 84 | 31 (18.3) |
| > 85 | 11 (6.5) |
| Adults | 162 (96) |
| Children (<18 years) | 7 (4) |
| **Gender** |  |
| Female | 87 (51.5) |
| Male | 82 (48.5) |
| **Ethnicity** |  |
| Caucasian | 114 (67.5) |
| African origin | 35 (20.7) |
| Other/non-specified | 20 (11.8) |
| **Hospitalization days** |  |
| mean±SD | 5.9±4.9 |
| **Hospitalization place** |  |
| Immunoallergology Department | 87 (51.5) |
| Another Department | 82 (48.5) |
| SD - Standard Deviation | |

Table 2 - Total of hospitalizations and angioedema without urticaria hospitalizations, between 2009 and 2013

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2009 | 2010 | 2011 | 2012 | 2013 | Total | | Mean |
| **Hospitalizations with angioedema without urticaria - n** | **27** | **30** | **42** | **40** | **30** | **169** | | **33.8** |
| 1. AE as a cause for the hospitalization | 15 | 17 | 32 | 30 | 17 | 111 | | 22 |
| 1. AE as an incidental situation | 12 | 13 | 10 | 10 | 13 | 58 | | 12 |
| **Total of hospitalizations in the CHULN - n** | **50 128** | **49 091** | **48 844** | **46 265** | **42 544** | **-** | | **47374** |
| **Rate of hospitalizations for angioedema without urticaria per 100,000 hospitalizations** | **53.9** | **61.1** | **86** | **86.5** | **70.5** | **-** | | **71.6** |
| 1. AE as a cause for the hospitalization | 29.9 | 34.6 | 65.5 | 64.8 | 40 | - | | 46.9 |
| 1. AE as an incidental situation | 23.9 | 26.5 | 20.5 | 21.6 | 30.6 | - | | 24.6 |
| AE-angioedema; HAE- Hereditary angioedema | | | | | | |

Table 3 - Distribution of hospitalization episodes

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Groups of angioedema** | **Aetiologies** | | | | | | |
| HAE | ACEi-AE | rtPA-AE | NSAID-AE | Other | Idiopathic | **Total – n (%)** |
| 1. AE as a cause for the hospitalization | 39 | 34 | 0 | 6 | 8 |  | 115 (68) |
| 1. AE as an incidental situation | 1 | 18 | 22 | 2 | 4 | 11 | 54 (32) |
| **Total – n (%)** | **40 (23.7)** | **52 (30.8)** | **22 (13)** | **8 (4.7)** | **12 (7.1)** | **35 (20.7)** | **169 (100)** |
| AE- angioedema, ACEi-AE - angiotensin-converting-enzyme inhibitor induced angioedema; HAE - Hereditary angioedema; rTPA-AE – recombinant tissue plasminogen activator induced angioedema; NSAID-AE - nonsteroidal anti-inflammatory drugs induced angioedema; Other- other aetiologies. | | | | | | | | |

Table 4- Demographic characteristics of hospitalizations according to aetiology

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | ACEI-AE  (n=52) | HAE  (n=40) | AE-rTPA  (n=22) | NSAID-AE  (n=8) | Other  (n=12) | Idiopathic (n=35) | p-value |
| Mean age (years) | | 67 | 37 | 68.5 | 52.5 | 56 | 58.6 | 0.07 |
| Female (%) | | 65 | 57.5 | 36 | 50 | 75 | 43 | 0.01 |
| Caucasian (%) | | 27 | 98 | 77 | 75 | 100 | 77 | <0,0001 |
| AE- angioedema, ACEi-AE - angiotensin-converting-enzyme inhibitor induced angioedema; HAE - Hereditary angioedema; rTPA-AE – recombinant tissue plasminogen activator induced angioedema; NSAID-AE - nonsteroidal anti-inflammatory drugs induced angioedema; Other- other aetiologies | | | | | | | | |
|  |

Table 5 – Angioedema without urticaria attacks location

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **AE attacks location** | **Aetiologies** | | | | | | | |
| Total  n (%) | HAE  n (%) | ACEi-AE  n (%) | rTPA-AE  n (%) | NSAID-AE  n (%) | Other  n (%) | Idiopathic  n (%) | |
| **One location site** | | | | | | | | |
| Face | **27 (16)** | 6 (15) | 0 (0) | 4 (18) | 4 (50) | 5 (42) | 10 (29) | |
| Lips | **26 (15)** | 0 (0) | 12 (23) | 5 (23) | 1 (12.5) | 4 (33) | 4 (11) | |
| Tongue | **33 (20)** | 1 (3) | 13 (25) | 9 (41) | 0 (0) | 3 (25) | 5 (14) | |
| Pharyngolaryngeal | **13 (8)** | 4 (10) | 7 (13) | 0 (0) | 2 (25) | 0 (0) | 0 (0) | |
| Cervical | **9 (5)** | 7 (18) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | |
| Peripheral | **6 (4)** | 6 (15) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | |
| Abdominal | **12 (7)** | 12\* (30) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | |
| **Multi location site** | | | | | | | | |
| Face + Lips | **19 (11)** | 3 (8) | 12 (23) | 0 (0) | 1 (12.5) | 0 (0) | 4 (11) | |
| Lips + Tongue | **10 (6)** | 0 (0) | 6 (12) | 2 (9) | 0 (0) | 0 (0) | 3 (9) | |
| Face + Cervical | **5 (3)** | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 5 (14) | |
| Tongue + Pharyngolaryngeal | **8 (5)** | 0 (0) | 2 (4) | 2\*\*(9) | 0 (0) | 0 (0) | 4 (11) | |
| Abdominal + Peripheral | **1 (1)** | 1 (3) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | |
| TOTAL | **169 (100)** | 40 (100) | 52 (100) | 22 (100) | 8 (100) | 12 (100) | 35 (100) | |
| \*In 6 (50%) the abdominal AE was documented by ultrasonography. \*\* Airway protection was required. **Abbreviations:** HAE - Hereditary angioedema; ACEi-AE - angiotensin-converting-enzyme inhibitor induced angioedema; rTPA-AE - Thrombolysis induced angioedema; NSAID-AE - Nonsteroidal anti-inflammatory drugs induced angioedema; Other- other aetiologies. | | | | | | | |

Figure 1- Number of hospitalizations per year according to angioedema aetiology between 2009 to 2013

AE – angioedema, ACEi-AE - angiotensin-converting-enzyme inhibitor induced angioedema; HAE - Hereditary angioedema; rTPA-AE - recombinant tissue plasminogen activator induced angioedema; NSAID-AE - nonsteroidal anti-inflammatory drugs induced angioedema; Other- other aetiologies