**The influence of ultrasound in the choice of surgical technique to repair inguinal hernia: a prospective multicentric cohort study**

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**Appendices**

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**Appendix 2 - Supplementary tables and materials**

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| --- | --- |
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**Table 4** – Detailed description of surgical techniques.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | **Physical evaluation**  (n = 448) | **Ultrasound**  (n = 463) | **Total**  (n = 911) |
| **Surgical Technique** | Lichtenstein | 225 (50.4%) | 235 (51.3%) | 460 (50.9%) |
|  | Minimally invasive | 14 (3.1%) | 23 (5.0%) | 37 (4.1%) |
|  | Others open with mesh | 34 (7.6%) | 36 (7.9%) | 70 (7.7%) |
|  | Plug and Patch | 172 (38.6%) | 158 (34.5%) | 330 (36.5%) |
|  | Open without mesh | 1 (0.2%) | 6 (1.3%) | 7 (0.8%) |

**Table 5** – Description of anesthetic techniques.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | **Physical Evaluation**  (n = 448) | **Ultrasound**  (n = 463) | **Total**  (n = 911) |
| **Anesthesia** | General | 280 (62.5%) | 291 (62.9%) | 571 (62.7%) |
|  | Regional | 161 (35.9%) | 165 (35.6%) | 326 (35.8%) |
|  | Local | 5 (1.1%) | 6 (1.3%) | 11 (1.2%) |
|  | (Missing) | 2 (0.4%) | 1 (0.2%) | 3 (0.3%) |
| **Nerve Block** | Iliohypogastric | 6 (4.1%) | 7 (3.8%) | 13 (4.0%) |
|  | Ilioinguinal | 26 (17.9%) | 33 (17.9%) | 59 (17.9%) |
|  | Subcutaneous | 107 (73.8%) | 141 (76.6%) | 248 (75.4%) |
|  | Subfascial | 6 (4.1%) | 3 (1.6%) | 9 (2.7%) |

**Appendix 3 - Definitions**

**ASA grade** 21

The American Society of Anesthesiologists (ASA) physical status classification system appeared in 1941, as a tool of operative risk prediction, based on the patient's physiological status. It is widely used to assess the patient's general condition, which results in a 6-level grading system.

A normal healthy patient is classified as ASA 1, but a patient with mild systemic disease is categorized as ASA 2. In the case of severe systemic disease, if this is non-life-threatening the patient is ASA 3, but ASA 4 if it is a constant threat to life. ASA 5 pertains to the patient who is not expected to survive more than 24 hours without surgical intervention. ASA 6 refers to the brain-dead patient.

**BMI** 22

When calculating an estimate of body fat, for all ages and both sexes, the Body Mass Index (BMI) is commonly used. This results from dividing a person’s weight (kilograms (kg)) by their squared height (meters (m)), allowing for classification into underweight (<18.5 kg/m2), normal weight (18.5-24.9 kg/m2), overweight (25 - 29.9 kg/m2), or obese (30 kg/m2).

**European Hernia Society Quality of Life (EuraHS-QoL)** 23

EuraHS-QoL is a numerical quality-of-life score, for pain evaluation at the hernia/repair site, activity restriction and cosmetic discomfort. A patient-reported outcome measure can be used both pre- and postoperatively.

Pain at rest, during activities and peak pain in the previous week are evaluated. Activity restriction is evaluated inside and outside the house, as well as during sports and heavy labor. Cometic discomfort is described in terms of abdomen shape and discomfort at the hernia site.

In this analysis focused on preoperative evaluation, but the questionnaire was also reapplied postoperatively. As all items are rated from 0 (most positive) to 10 (most negative), patients who achieved higher scores had worse preoperative quality of life.

**Appendix 4 - Additional References**

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