-Incluir na descrição da análise estatística:

In the univariate analysis, the Logistica Binaria regression model was used, with an estimate of the odds ratio (Odds Ratio) and respective confidence intervals (CI 95%) to assess the extent of the association between the variables.

SUBSTITUIR TODA DESCRIÇÃO POR PELO TEXTO ABAIXO

Dados descritivos:

A total of 3,042 patient examinations were conducted, of which 701 were excluded due to being under 45 years old, 179 due to previous surgery, and 24 due to patients having to repeat the procedure. This resulted in the inclusion of 2,144 patient examinations. Among them, 1,470 were found to have at least one polyp, and 1,004 had at least one adenoma.

There was a predominance of female patients among the patients examined (1117/2144, 52.1%); the number of men was 1027 (47.9%). The mean age was 60.54 years (standard deviation ±10.80). For the analysis, we subdivided the patients into two age groups: 975 patients aged 45-59 (45.5%), and 1169 patients aged 60-75 years (54.5%).

Tabela #. Demographic data.

|  |  |
| --- | --- |
| **Variables** | **% (N)** |
| **Gender** |  |
| Feminine | 52.1 (1117) |
| Male | 47.9 (1027) |
| **Age Group** |  |
| 45-59 | 45.5 (975) |
| 60 <= | 54.5 (1169) |

Teve um total de 9 intercorrências, 2(22%) sangramentos tardios, ambos com sucesso na segunda colonoscopia com foco na intervenção do sangramento (5º dia e 7º dia); 1(11%) Trauma flanco esquerdo, que não se sucedeu sequelas; 1(11%) perfuração, que foi logo trata com por endoscopia; 1(11%) bronca aspiração; 2(22%) Uso de antibiótico; 1(11%) Sintomáticos e 1 Preparos inadequados.

Table # Intercorrences.

|  |  |
| --- | --- |
| **Variables** | **% (N)** |
| Late bleeding | 22% (2) |
| Left Flaccid Trauma | 11% (1) |
| Drilling | 11% (1) |
| Bronchoaspiration | 11% (1) |
| Use of Antibiotics | 22% (2) |
| Symptomatic | 11% (1) |
| Inadequate Preparations | 11% (1) |

Regarding the distribution of polyps in colonoscopy, 3646 patients were found to have a dysplastic polyp in the exam (68.6%), with a median amount of 2 [1, 3] polyps per exam. A total of 853 patients had more than one polyp (39.7%). A total of 3646 polyps were found in the analyzed period. As for the anatomopathological exams, 1004 patients had one or more adenomas, with an overall ADR of 46.8%. with a median amount of 2[1, 3] adenomas per patient when found. A total of 2071 adenomas were found, 56.8% of the total number of polyps.

Table #. Description of Polyps and Adenoms Detection Rates.

|  |  |
| --- | --- |
| **Variables** | **% (N)** |
| **Polyp detection rate ²** | 68.6 (1470) |
| **Total number of removed polyps ³** | 3646 |
| **Number of polyps removed per patient ²** | 2.00 [1.00, 3.00] |
| **Adenoms detection rate ¹** | 46.8 (1004) |
| **Total number of removed adenoms ³** | 2071 |
| **Number of adenoms removed per patient ²** | 2.00 [1.00, 3.00] |

¹(Values expressed as median (percentile 25, 75%); ²Values expressed as %(n); ³Value expressed as n.

Regarding gender distribution, 64.6%(722) of women were found to have at least one polyp, vs 72.8%(748) of men, with P < 0.001; OR 1.46, (95% IC: 1.22-1.76) in univariate Analysis. A median of polipys amount of 2 [1, 3] vs 2 [1, 4], with P < 0.001 Kruskal Wallis.

ADR of 42.6%(476) vs 51.4%(528), with P < 0.001; OR 1.42, (95% IC: 1.20-1.69) in univariate Analysis. Median amount of adenomas 2[1, 2] vs 2[1, 3], with P = 0.004 Kruskal Wallis.

Regarding age distribution, 63.3%(740) of those aged 45-59 years old had at least one polyp, vs 74.9%(730) men, with P < 0.001; OR 1,72, (95% IC: 1.43-2.07) in univariate Analysis. A median amount of 2 [1, 3] vs 2 [1, 4] , with P = 0.004 Kruskal Wallis.

ADR 35.5%(438) vs 58.1%(566), with P < 0.001; OR 2.23, (95% IC: 1.87-2.65) in univariate Analysis., median amount of adenomas 2[1, 2] vs 2[1, 3], with P = 0.001 Kruskal Wallis.

The stratification of patients according to the patient's gender revealed an association with ADR and ADR, with statistically significant higher values for men in all aspects. The same was true for the analysis of association with age, patients aged 60 years or older had statistically significant higher values in all aspects in all aspects as well, ADR and RAM.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Gender** | |  | **Age** | |  |
| **Variables** | **Feminine (n = 1117)** | **Male (n = 1027)** | **P-value** | **45-59 (n = 975)** | **60 ≤ (n = 1169)** | **P-value** |
| **Polyp detection rate²** | 64.6 (722) | 72.8 (748) | <0.001 | 63.3 (740) | 74.9 (730) | <0.001 |
| **Number of Polyps Found by Exams¹** | 2.00 [1.00, 3.00] | 2.00 [1.00, 4.00] | <0.001 | 2.00 [1.00, 3.00] | 2.00 [1.00, 4.00] | <0.001 |
| **Adenom detection rate²** | 42.6 (476) | 51.4 (528) | <0.001 | 37.5 (438) | 58.1 (566) | <0.001 |
| **Number of Adenoms Found by Exams¹** | 2.00 [1.00, 2.00] | 2.00 [1.00, 3.00] | 0.004 | 1.00 [1.00, 2.00] | 2.00 [1.00, 3.00] | 0.001 |

¹(Values expressed as median (percentile 25, 75%); ²Values expressed as %(n); ³Value expressed as n.

There was an association observed between the ADR rate and the year of the examination, with P < 0.001 (Chisq-squared), with values that point to positive linear growth, p = 0.009 (linear regression) when treating the variable as numerical. Demonstrating evidence of significant service improvement over the years since opening. The association between the median number of polyps per patient and the Year was not significant, with p = 0.0802 (Kruskal-Wallis test), indicating a tie in the medians.

Another association observed was the ADR rate with the year of the exam, it was observed that despite a low rate in 2019, there was a stabilization in the service performance in subsequent years (p = 0.278). Specifically, the observed values did not deviate from the expected distribution, especially when excluding the inauguration year (2019) from calculations (p = 0.8161). This provides significant evidence of consistency in the results, indicating a stabilization in the quality of adenoma detection service. The association between the median number of adenomas per patient and the Year was not significant, with p = 0.055 (Kruskal-Wallis test), indicating a tie in the medians.

Tabela #. Description of Adenomas Detection Rates by Year.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2019  (May - December) (n = 69) | 2020 (n = 186) | 2021 (n = 517) | 2022 (n = 936) | 2023 (January - April) (n = 436) | p |
| **Polyp detection rate²** | 47.8 (33) | 60.2 (112) | 67.3 (348) | 69.9 (654) | 74.1 (323) | <0.001 |
| **Number of Polyps Found by Exams¹** | 2.00 [1.00, 3.00] | 2.00 [1.00, 3.00] | 2.00 [1.00, 4.00] | 2.00 [1.00, 3.00] | 2.00 [1.00, 3.00] | 0.080 |
| **Adenom detection rate²** | 34.8 (24) | 45.7 (85) | 47.4 (245) | 46.6 (436) | 49.1 (214) | 0.278 |
| **Number of Adenoms Found by Exams¹** | 1.00 [1.00, 3.00] | 1.00 [1.00, 2.00] | 2.00 [1.00, 2.00] | 2.00 [1.00, 2.75] | 2.00 [1.00, 2.00] | 0.055 |

¹(Values expressed as median (percentile 25, 75%); ²Values expressed as %(n); ³Value expressed as n.

Gráfico

Descrição gerada automaticamenteGráfico, Gráfico de barras

Descrição gerada automaticamenteGráfico, Gráfico de linhas

Descrição gerada automaticamente

(A) Combined Boxplot and Violin plot of the number of polyps detected per examination - Analysis of medians across the years showed no significant difference with p = 0.0802 (Kruskal-Wallis test); (B) Bar graph illustrating the polyp detection rates, indicating an increasing trend; (C) Scatter plot of the Polyp Detection Rate per Year with a linear trend line, demonstrating a tendency for the detection rate to grow (p = 0.009), with a significant p value, demonstrating the improvement of the service over the years.

Gráfico, Gráfico de caixa estreita

Descrição gerada automaticamenteGráfico, Gráfico de barras

Descrição gerada automaticamenteGráfico

Descrição gerada automaticamente

(A) Combined Boxplot and Violin plot of the number of polyps detected per examination - Analysis of medians across the years showed no significant difference with p = 0.05544 (Kruskal-Wallis test); (B) Bar chart illustrating polyp detection rates, with a not so clear trend to identify; (C) Scatter plot depicting Adenoma Detection Rate (ADR) by Year with an overlaid linear trendline visually showing an increase in detection rates over the years. However, based on the simple linear regression analysis (p = 0.0885), there wasn't a statistically significant p-value to confirm evidence of a growing trend.