ISW26-493-01 (0486)

EXTENT OF LYMPH NODE METASTASES AND ITS IMPACT ON OUTCOME IN PEDIATRIC THYROID CANCER PATIENTS

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Introduction:
Presence of lymph node metastases (LNM) could influence clinical outcome in pediatric thyroid cancer (TC) patients. The aim of this study was to investigate the extent and distribution of LNM and its effect on overall survival (OS) and recurrence free survival (RFS) in pediatric TC patients.

Material and Method:
Retrospective study (January 1990 to December 2024) of 68 pediatric TC patients (< 18 years) excluding meduallary thyroid carcinoma. Clinicopathological details, OS and RFS were analyzed.

Results:
Mean age of the cohort was 15.4 years (M:F= 1:1.3). Eighty-seven percent had papillary carcinoma 11.8 follicular and 1.5% poorly differentiated carcinoma. Median Tumor size was 2.8 cm. Tumor multicentricity (MC), extrathyroidal invasion (EI), LNM, and distant metastases (DM) were noted in 38.3, 25, 67.6 and 14.7% respectively. Total thyroidectomy was performed in 95% and 65% received radioiodine ablation/therapy. Central compartment dissection was performed in 76.5 % and 58.8 % children in addition had lateral neck dissection (bilateral= 33.8%). Median number of LN dissected, LNM and lymph node ratio was 33 (IQR: 12-47), 10 (IQR: 6-21) and 0.40 (IQR: 0.21- 0.61) respectively. Twenty-six percent patients with LNM showed extra-nodal extension. Five and ten- years OS was 93.3 and 88.1% whereas RFS was 66.6 and 62.4% respectively. On univariate analysis OS was significantly associated with DM (p=0.001), EI (P=0.006), MC (p=0.020), and LNM compartments (p=0.025). RFS was significantly associated with sex (p=0.031), LNM (p=0.037) and LNM compartments (p=0.002).

Conclusion:
Extent of LNM seems to have significant impact on OS and RFS in pediatric TC patients.

ISW26-493-02 (1017)

UNREPORTED CASES OF CONGENITAL ANOMALIES AT AMAZONIA

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Introduction:
Congenital malformations (CM) are significant cause of morbidity and mortality, accounting for 9% of the surgical burden of disease, contributing to the disability of 150 million children worldwide, primarily low-income children, and being both a cause and a result of low socioeconomic status. Recording the occurrence of congenital defects allows us to identify populations at greater risk, implementing prevention programs and estimating service needs. It also allows us to monitor changes in occurrence, identifying and investigating clusters.

Material and Method:
We present a comparison between official data available in DATASUS for the state of Acre, Amazonia-Brazil, and data recorded on hospital admissions between 2017 and 2022. All newborns admitted to or diagnosed with the following CM during their stay at the region's referral maternity hospital were included: Anorectal anomalies, Hirschsprung's disease, esophageal atresia, intestinal atresia, gastroschisis, omphalocele, and diaphragmatic hernia, which collectively account for up to 40% of emergency neonatal surgeries. This study was approved by Plataforma Brasil, CAAE 49973421.0.0000.5010.

Results:
Alarming underreporting of congenital anomalies, with all records being less than 50%. Findings regarding the percentage of notifications to DATASUS: anorectal anomaly (40%), Hirschsprung's disease (11%), esophageal atresia (27%), intestinal atresia (41%), gastroschisis (42%), omphalocele (28%), and diaphragmatic hernia (27%). It is observed that even congenital anomalies that are easily diagnosed by physical examination are underreported.

Conclusion:
A policy aimed at improving the quality of this information is necessary, perhaps with compulsory notification at the time of hospital discharge, rather than upon admission, to include those diagnosed during the hospital period.

Tabela 1 – Comparation of Brazilian oficial data –DATASUS- with researched data for total number of children born with congenital malformation between 2016 and 2021 at Acre, Brazil.

	DATASUS	Study	Official reported cases
Esophageal Atresia	10	37	27%
Intestinal Atresia	10	24	41%
Anorectal Malformation	17	42	40%
Hirschsprung Disease	2	17	11%
Congenital Diafragmatica Hernia	6	22	27%
Onphalocele	10	26	38%
Gastroschisis	27	63	42%

ISW26-493-03 (0748)

THE NUSS PROCEDURE USING LEFT-SIDED THORACOSCOPY FOR PECTUS EXCAVATUM. ANALYSIS OF 100 CASES.

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Introduction:
Dr. Donald Nuss introduced a minimally invasive procedure for pectus excavatum in 1997. Modifications, including right-sided thoracoscopy, have improved safety and efficacy. We present a further modification—left-sided thoracoscopy—to allow continuous visualization of the heart and pericardium.

Material and Method:
We retrospectively reviewed 100 children treated with a modified Nuss procedure at the University Children's Hospital of Cracow between 2016 and 2024. Data collected included demographics, surgery duration, hospital stay, and outcomes. The technique used three incisions: two for the introducer (anterior to the heart and lungs, posterior to ribs and sternum) and one for the thoracoscope. In our modification, the thoracoscope was placed on the left side to optimize cardiac visualization. The bar was removed after 2–4 years.

Results:
Of the 100 patients, 92 were male. All underwent left-sided thoracoscopy. Mean hospital stay was 9 days (range 5–21). Recurrence appeared in two patients. Surgical complications were observed in 5 patients; early postoperative complications in 12. No significant correlation was found between age and complications, recurrence, or reoperation. Higher weight was significantly associated with fewer intraoperative complications (rho = –0.46). Weak but significant correlations were found between shorter surgery duration and longer hospitalization (rho = –0.33), and between longer surgery duration and increased reoperation risk (rho = 0.35).

Conclusion:
The Nuss procedure remains an effective, low-risk treatment for pectus excavatum. Left-sided thoracoscopy may improve safety by reducing cardiac injury risk. Higher patient weight may indicate a lower risk of intraoperative complications.

ISW26-493-04 (0835)

NEW PROPOSAL OF A VALIDATION SCALE MODIFIED FROM SURGICAL APGAR, APPLIED TO ONCOLOGIC PEDIATRIC PATIENTS WITH SOLID PRIMARY EXTRACRANIAL TUMORS TO PREDICT SURGICAL COMPLICATIONS AND THEIR CORRELATION WITH CLAVIEN-DINDO.

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Introduction:
Cancer is one of the leading causes of death in the pediatric population.The study of the main complications will allow for the dismissal of surgical risk complications before and after the surgery is performed, and improve the equipment necessary to attend to this pathology.The APGAR scale is a tool that enhances outcomes and predicts mortality and morbidity in the adult population.There are no surgical scales proposed or validated in the pediatric population to improve his attention and predict outcomes.

Material and Method:
Retrospective cohort, with pediatric patients attending a tertiary level in Mexico City, diagnosed with primary extracranial tumors, requiring surgical intervention for their diagnosis and treatment. Between January 2019 and December 2021. Surgical procedures, complications, and outcomes were identified from procedure records. We used descriptive statistics to correlate the incidence of surgical complications and the Clavien-Dindo scale

Results:
Eighty-eight patients were included, 43 had abdominal primary tumors with a high incidence of Wilm´s tumor and hepatoblastoma, with the application of the modified APGAR we found high-risk patients were those with Clavien-Dindo III, and hepatic tumors ($P < 0.001$) 24 of 26 of the patients presented complications during the surgery (hemorraghic shock requiring intensive care unit stay. Most of the patients increased their risk with surgical time more than 3 hours ($P<0.001$)

Conclusion:
The APGAR score is a useful tool with good results in pediatric populations, according to our study, allowing for the prediction of high-risk patients according to surgical complications and Clavien-Dindo scale

Gráfico 5: Complicaciones según Clavien- Dindo y su relación con APGAR COP.

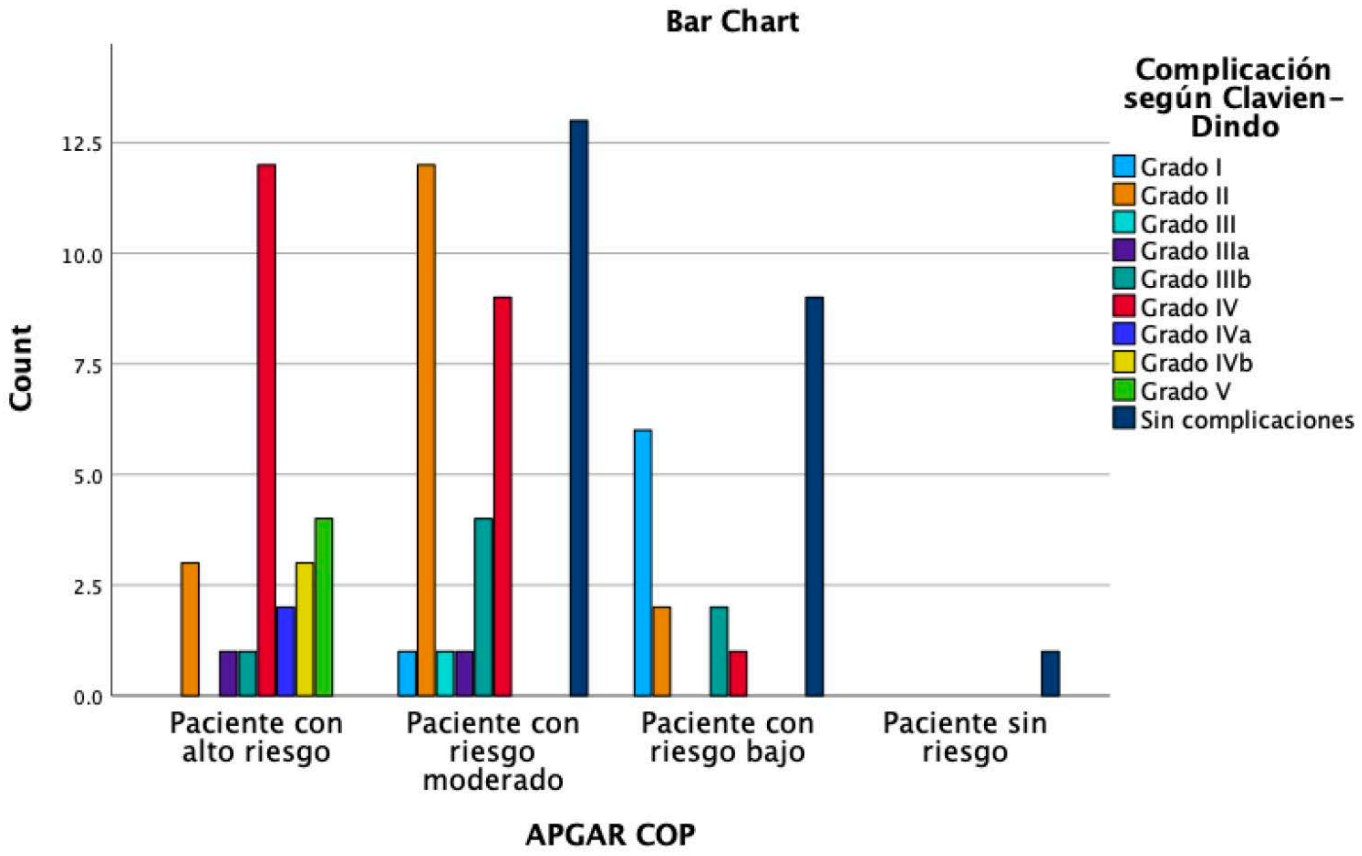
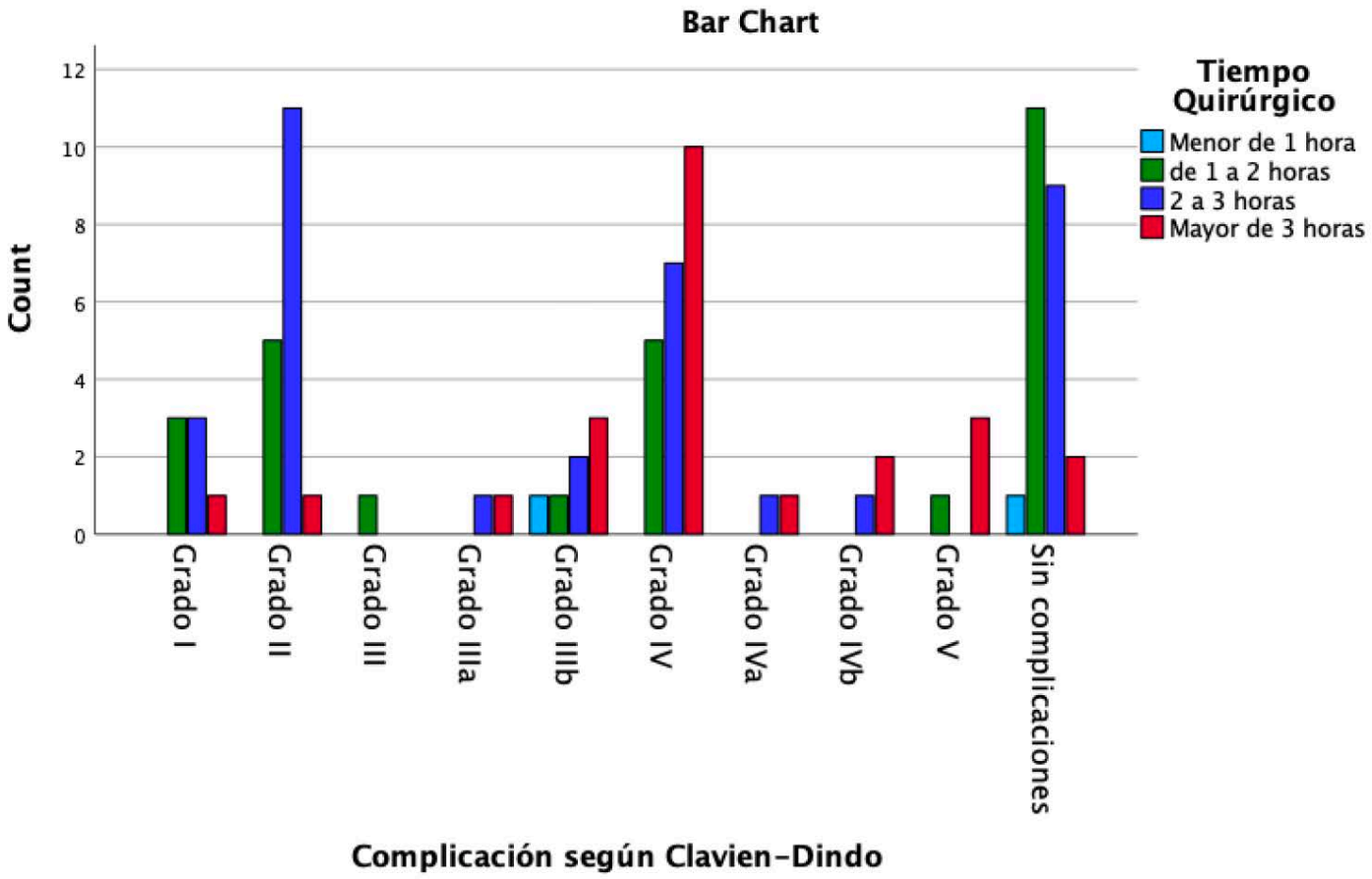


Gráfico 4: Relación tiempo quirúrgico con complicaciones según Clavien- Dindo.



ISW26-493-05 (0886)

IN VIVO MEASUREMENTS OF APPENDICEAL BASE - IMPLICATIONS ON PEDIATRIC LAPAROSCOPIC APPENDECTOMY

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Introduction:
Securing the base of the appendix is the most critical part of laparoscopic appendectomy in children. Determining the average values of the appendix, will facilitate the creation of suitable instruments, and will also have an impact on research in imaging studies.

Material and Method:
One hundred and eight patients with the acute appendicitis were randomized into 2 groups: group I: children aged 2–10 years old, group II: children >10 years of age. Each group was further divided into 3 subgroups: phlegmonous, gangrenous and perforated forms of acute appendicitis. The external diameter of the appendiceal base, the middle part of the appendix, the tip and the length were determined. The measurements were made with the help of Vernier calipers, and expressed in millimeters.

Results:
In group I, the average size of the appendiceal base in the phlegmonous form was 5.6861.51mm, in the gangrenous form 7.0861.82mm, and in the perforated form 6.94 6 2.43 mm. In group II, the average size of the appendiceal base in the phlegmonous form was 7.2962.75mm, in the gangrenous form 7.2462.11mm, and in the perforated form 9.31 6 3.07 mm.

Conclusion:
Although most appendices can be removed by standard methods, the maximum sizes observed in this study reveal that standard endoloop or plastic titanium clips cannot be used in the procedure and instead the more expensive stapler has to be utilized.

ISW26-493-06 (0566)

INDICATIONS, COMPLICATIONS AND ENDOSCOPIC FINDINGS OF COLONOSCOPY IN PAEDIATRIC POPULATION

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Introduction:
Pediatric colonoscopy differs significantly from adult colonoscopy in almost all aspects including patient management and preparation, selection criteria for sedation and general anesthetic, bowel preparation, expected diagnoses, instrument selection, imperative for terminal ileal intubation, and requirement for biopsies from macroscopically normal mucosa. Despite the high diagnostic yield, colonoscopy is still an under-utilized tool and information regarding its efficacy is scanty in most of the developing countries. This research aims to study the frequency of indications for colonoscopy in paediatrics, assess its diagnostic and therapeutic yield and correlate with histopathological and radiological findings, and to study the frequency and types of complications encountered.

Material and Method:
The medical records of all patients under the age of 12 years, who underwent colonoscopy, from August 2015 to March 2025, were reviewed using the database of our hospital. All of the pediatric patients in whom colonoscopy was performed during the study period were included in the study.

Results:
600 procedures were performed in this time interval. 72% showed abnormal macroscopic and/or histopathological findings. There were 53 cases of EGIDs (20%), 56 cases of IBD (22.5%), 28 cases of polyps/polyposis (17%), 29 cases of nonspecific colitis (23.5%), 13 cases of hemorrhoid/anal fissure (4.7%). No complications were reported during or immediately after the procedures.

Conclusion:
Colonoscopy offers a high diagnostic capability for pediatric patients with gastrointestinal symptoms. The selection of appropriate management the performance of colonoscopy is important in pediatric patients

ISW26-493-07 (0294)

SURGICAL VS NON-SURGICAL MANAGEMENT OF UNCOMPLICATED PEDIATRIC APPENDICITIS: A META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

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Introduction:
Acute appendicitis remains one of the most frequent indications for pediatric abdominal surgery. While appendectomy has traditionally been the standard of care, antibiotic-based non-surgical management has gained attention for uncomplicated cases. However, its safety and efficacy compared to surgery remain uncertain.

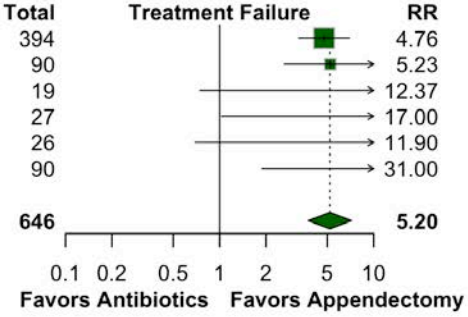
Material and Method:
A systematic review and meta-analysis were performed using PubMed, Scopus, and Web of Science through June 12, 2025. Randomized controlled trials comparing antibiotic therapy with appendectomy in children were included. A random-effects model (RStudio version 4.5.0) was applied. Mean differences were calculated for continuous variables and relative risks for dichotomous variables, both with 95% confidence intervals. Heterogeneity was assessed with the I^2 statistic.

Results:
Seven trials comprising 1,386 patients were analyzed. Surgical management significantly reduced the risk of perforated appendicitis (RR: 3.76; 95%: 1.52; 9.28) and treatment failure (RR: 5.20; 95%: 3.76; 7.18). Reoperation rates within one year were also lower in the surgical group (RR: 14.55; 95%: 5.00; 42.38), and hospital stay was slightly shorter (MD: 0.44 days; 95%: 0.05; 0.84). Conversely, non-surgical therapy allowed earlier return to normal activities (MD: –5.90 days; 95%: –9.83; –1.96).

Conclusion:
Surgery offers superior outcomes in terms of complications, recurrence, and reoperations, reinforcing its role as the preferred strategy for pediatric uncomplicated appendicitis. Although non-surgical management facilitates faster functional recovery, its higher failure and complication rates limit routine adoption.

Study	Antibiotics Events	Antibiotics Total	Appendectomy Events	Appendectomy Total	RR	95%-CI	Weight
St Peter et al. 2025	153	452	28	394	4.76	[3.26; 6.96]	72.6%
Adams et al. 2024	59	127	8	90	5.23	[2.63; 10.39]	22.1%
Perez Otero et al. 2022	6	20	0	19	12.37	[0.75; 205.16]	1.3%
Hall et al. 2021	8	27	0	27	17.00	[1.03; 280.33]	1.3%
Svensson et al. 2015	5	24	0	26	11.90	[0.69; 204.15]	1.3%
Sajjad et al 2021	15	90	0	90	31.00	[1.88; 510.32]	1.3%
Random effects model	**246**	**740**	**36**	**646**	**5.20**	**[3.76; 7.18]**	**100.0%**

Heterogeneity: I^2 = 0.0%, τ^2 = 0, p = 0.6779



Study	Antibiotics Total	Antibiotics Mean	Antibiotics SD	Appendectomy Total	Appendectomy Mean	Appendectomy SD	MD	95%-CI	Weight
St Peter et al. 2025	452	1.00	1.48	394	4.00	2.23	-3.00	[-3.26; -2.74]	40.4%
Adams et al. 2024	127	10.00	8.62	90	16.00	13.56	-6.00	[-9.18; -2.82]	32.0%
Perez Otero et al. 2022	20	2.00	7.18	16	12.00	5.68	-10.00	[-14.20; -5.80]	27.7%
Random effects model	**599**			**500**			**-5.90**	**[-9.83; -1.96]**	**100.0%**

Heterogeneity: I^2 = 85.7%, τ^2 = 9.9521, p = 0.0009