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Abstracts of the Second International Medical Symposium of El Petén: A Multidisciplinary Approach to Common Medical Problems

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Comprehensive Review of Bedside Perianal Abscess Drainage

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Background:
Perianal abscesses are the most common anorectal abscesses, yet optimal drainage techniques and postoperative management remain variable. We performed a systematic review to evaluate factors influencing management strategies and recurrence following perianal abscess drainage.

Methods:
A systematic review was conducted in accordance with PRISMA guidelines. PubMed was searched to evaluate risk factors, imaging modalities, location of incision and drainage (bedside versus operating room), wound packing practices, antibiotic use, fistulotomy, and risk factors for recurrence. The primary outcome was abscess recurrence.

Results:
Thirteen studies met inclusion criteria. Two large retrospective studies identified diabetes mellitus and increased body mass index as significant risk factors for perianal abscess formation. One large study demonstrated ultrasound to be the most sensitive imaging modality, while computed tomography was the most specific for perianal abscesses. Two retrospective studies showed bedside incision and drainage to be non-inferior to operating room drainage, while a third suggested operative drainage with examination under anesthesia reduced fistula formation. Three systematic reviews and randomized trials demonstrated no reduction in recurrence with routine wound packing. Fistulotomy was associated with decreased recurrence, whereas inflammatory bowel disease and abscess location increased recurrence risk.

Conclusion:
Bedside incision and drainage is a safe and effective approach for selected patients with perianal abscesses. Routine wound packing does not reduce recurrence, and selective fistulotomy may decrease recurrent disease. Management should be individualized based on patient comorbidities and abscess characteristics.

Del intestino a la vía biliar, un migrante silencioso: ascariasis biliar
From the intestine to the bile duct, a silent migrant: biliary ascariasis

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Los parásitos han convivido con el ser humano a lo largo del tiempo. Ascaris lumbricoides es el helminto más frecuente que afecta al tracto gastrointestinal. Los gusanos adultos suelen localizarse principalmente en el yeyuno, aunque en ocasiones pueden migrar hacia los conductos biliar y pancreático, o incluso a ambos, provocando complicaciones como obstrucción biliar, colecistitis, colangitis, pancreatitis o abscesos hepáticos. En adultos, la prevalencia general de infección se sitúa alrededor del 8–9%, pero solo cerca del 0.45% desarrolla esta forma complicada. Se ha observado una mayor afectación en mujeres, con una proporción aproximada de 7 a 3 frente a los hombres, posiblemente debido a la influencia hormonal sobre el músculo liso.

El siguiente caso se trata de una paciente femenina de 24 años; quien consulta por dolor en hipocondrio derecho. Es ingresada al Hospital de San Benito, Petén, donde se evidencia ecográficamente dilatación de vesícula biliar y resultados de laboratorio con patrón de origen obstructivo, por lo que se realiza CPRE evidenciando múltiples ascaris lumbricoides en cámara gástrica, duodenal y conducto biliar. Se realiza manejo clínico con antihelmíntico. Posterior a su ingreso y culminado el tratamiento, se realiza colecistectomía, la cual la paciente egresó sin complicaciones.

Parasites have coexisted with humans throughout history. Ascaris lumbricoides is the most common helminth affecting the gastrointestinal tract. Adult worms are usually found mainly in the jejunum, although they can sometimes migrate to the bile ducts and pancreatic ducts, or even both, causing complications such as biliary obstruction, cholecystitis, cholangitis, pancreatitis, or liver abscesses. In adults, the overall prevalence of infection is around 8–9%, but only about 0.45% develop this complicated form. A higher incidence has been observed in women, with a ratio of approximately 7 to 3 compared to men, possibly due to the influence of hormones on smooth muscle.

The following case involves a 24-year-old female patient who consulted for pain in the right hypochondrium. She was admitted to the Hospital

de San Benito, Petén, where ultrasound revealed gallbladder dilatation and laboratory results showed an obstructive pattern. ERCP was performed, revealing multiple Ascaris lumbricoides in the gastric chamber, duodenum, and bile duct. Clinical management with anthelmintic medication was performed. After admission and completion of treatment, a cholecystectomy was performed, and the patient was discharged without complications.

Between Languages and Patients: Comparing Perceived Strengths and Limitations Across Medical Training Environments in France, Tunisia, and the United States

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Background:
Clinical training varies across countries, shaped by cultural, structural, and educational differences. Some studies have shown that close supervision balanced with autonomy during rotations are linked to better professional development and improved patient-care outcomes, but there may be other elements that learners in certain environments may not be exposed to. Understanding these differences can highlight system-specific strengths and help make improvements in global medical education.
Purpose:
To compare medical trainees' perceptions of their clinical learning environments in Paris, Tunis, and Dallas and identify elements that may benefit medical trainees worldwide.
Methods:
A cross-sectional mixed-methods survey was distributed to medical students and residents in clinical training in France, Tunisia, and the United States. The survey consisted of Likert-scale items assessing learning climate, supervision, autonomy, and communication and free-response questions regarding strengths and limitations of each training environment. Quantitative data were analyzed using the Kruskal–Wallis test; qualitative data were analyzed using thematic analysis.
Results:
Preliminary findings suggest that trainees in each system identify distinct educational strengths: structured clinical rotations with detailed expectations in U.S. training sites, greater clinical autonomy in French hospitals, and resource-based adaptability in Tunisian settings. The open-ended responses revealed shared themes such as having a supportive team and the importance of clear role expectations.
Conclusion:
Distinct strengths across healthcare systems in these three different countries highlight complementary approaches to clinical training. Identifying and implementing these elements may enhance global medical education by emphasizing structure, autonomy, and adaptability—key components of an effective medical education program.

Impact of Delayed Presentation and Distance on STEMI Reperfusion and HEART Risk in a Resource-Limited Setting

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Background: In ST-elevation myocardial infarction (STEMI), shorter symptom-to-door times and prompt reperfusion are essential for myocardial salvage, yet substantial delays remain common in rural and resource-limited environments. In Petén, Guatemala, Hospital Nacional de San Benito (HNSB) functions as a referral center without percutaneous coronary intervention (PCI) services and with constrained thrombolytic inventory, raising concern that geographic distance contributes to late presentation, reduced fibrinolytic use, and higher-risk acute coronary syndrome (ACS) presentations by HEART score.
Methods: A retrospective study of 2023-2025 admissions to HNSB included 44 adults with ECG-confirmed STEMI and 52 adults with ACS. STEMI patients were stratified as early (less than 12 hours) or late (12 hours or more) based on symptom onset to hospital arrival, and groups were compared on demographics, comorbidities, time intervals, treatment (including fibrinolysis), and length of stay using Fisher's exact test and Mann-Whitney U test. ACS patients had HEART scores (0-10) calculated and categorized as low (0-3), moderate (4-6), or high (7-10) risk, and risk groups were compared by distance from HNSB and clinical characteristics.
Results: Among STEMI patients, 80.0% of early presenters and 66.7% of late presenters were male, with similarly high rates of diabetes (94.4% vs. 76.2%) and hypertension (85.0% vs. 81.8%) between groups (all $p > 0.05$). Late presenters arrived much later than early presenters, with mean symptom-to-door times of 55.9 ± 38.1 hours versus 4.92 ± 3.3 hours ($p < 0.001$), and only 25.0% of all STEMI patients arrived within 24 hours of symptom onset. Early presenters were significantly more likely to receive fibrinolytic therapy than late presenters (70.6% vs. 12.5%, $p = 0.001$), while late presenters had a numerically longer average hospital stay (6.5 vs. 3.6 days, $p = 0.28$); overall, 37.5% of STEMI patients received fibrinolysis (29.1% with streptokinase and 8.3% with alteplase), none underwent PCI, and use was constrained by an annual institutional supply of 18 streptokinase vials and the absence of interventional cardiology facilities. Among the 52-patients, 0 were low-risk by HEART score, 16 (29.6%) were moderate-risk, and 38 (70.4%) were high-risk; among patients presenting from more than 50 km away, 95.0% were high-risk compared with 56.3% of those living within 50 km (odds ratio 14.78; Fisher's exact $p = 0.0037$), despite no significant differences in sex distribution, heart rate, blood pressure, or in-hospital management between risk groups.
Conclusions: In this low- and middle-income country hospital, prolonged prehospital delays and geographic remoteness are closely associated with lower use of fibrinolytic therapy in STEMI and higher HEART risk profiles in ACS. Interventions that prioritize community awareness, reliable and timely transport from distant municipalities, and more consistent thrombolytic availability, alongside exploration of regional PCI access, may be critical to improving cardiovascular outcomes in Petén and comparable resource-limited regions.

Pedicled Inguinal Flap in Reconstructive Surgery

Colgajo Inguinal Pediculado en Cirugía Reconstructiva

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Introduction: Extensive forearm defects present a significant reconstructive challenge, especially when there is substantial loss of viable tissue. The pedicled inguinal flap remains a reliable option for covering complex open wounds.

Objective: To describe the use of a pedicled inguinal flap based on the right circumflex inguinal artery for the reconstruction of a large, devitalized defect in the distal third of the right forearm.

Methods: We present the case of a 26-year-old female patient, a victim of a car accident, with an extensive open wound and devitalized tissue in the distal third of her right forearm. Reconstruction was performed using a pedicled inguinal flap, employing the right circumflex inguinal artery as the primary vascular pedicle. The procedure included elevation, rotation, and adaptation of the flap for immediate coverage of the defect.

Results: Initial clinicopathological analysis identified non-viable tissue requiring debridement. The flap showed adequate perfusion and presented no partial necrosis or infectious complications. Tissue integration was complete, with functional recovery and a satisfactory aesthetic result during follow-up.

Conclusion: The pedicled inguinal flap is a safe, effective, and versatile reconstructive option for covering extensive open wounds in the upper extremities. This case reinforces its usefulness in complex scenarios and provides clinical evidence that contributes to the collective knowledge base in reconstructive surgery.

Introducción: Los defectos extensos del antebrazo representan un reto reconstructivo importante, especialmente cuando existe pérdida significativa de tejido viable. El colgajo inguinal pediculado continúa siendo una opción confinable para la cobertura de áreas cruentas complejas.

Objetivo: Describir el uso de un colgajo inguinal pediculado basado en la arteria circunfleja inguinal derecha para la reconstrucción de un defecto amplio y desvitalizado en el tercio distal del antebrazo derecho.

Métodos: Se presenta el caso de una paciente femenina de 26 años, víctima de un accidente automovilístico, con una extensa área cruenta y tejido desvitalizado en el tercio distal del antebrazo derecho. Se realizó reconstrucción mediante colgajo inguinal pediculado, empleando la arteria circunfleja inguinal derecha como pedículo vascular principal. El procedimiento incluyó elevación,
rotación y adaptación del colgajo para cobertura inmediata del defecto.

Resultado: El análisis clínico-patológico inicial permitió delimitar tejido no viable que requería desbridamiento. El colgajo mostró adecuada perfusión y no presentó necrosis parcial ni complicaciones infecciosas. La integración tisular fue completa, con recuperación funcional y resultado estético satisfactorio durante el seguimiento

Conclusión: El colgajo inguinal pediculado constituye una opción reconstructive segura, eficaz y versátil para la cobertura de áreas cruentas extensas en extremidades superiores. Este caso refuerza su utilidad en escenarios complejos y aporta evidencia clínica que contribuye a la construcción colectiva del conocimiento en cirugía reconstructiva.