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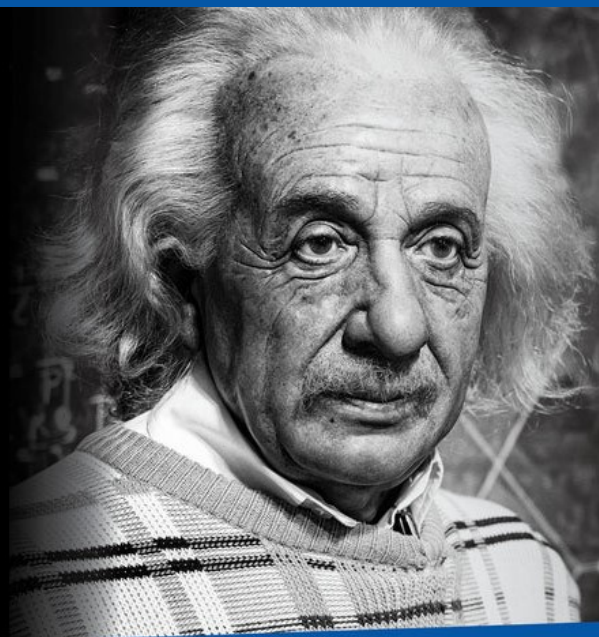
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 **vejoobis** Journal



**“Future Medicine
will be the Medicine
of Frequencies”**

~ Albert Einstein

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President Announcement

Vittorio Lombardo

Dear Esteemed Members,

I trust this message finds you all in good health and high spirits.

As the newly appointed President of The International Medical and First Aiders Association - VejoVis, I want to extend my heartfelt appreciation for your unwavering service as Deputy Chairman. Your dedication and leadership have been instrumental in advancing our organization's mission to champion excellence in medical and first aid practices worldwide.

I am honored to assume the role of President and eagerly anticipate collaborating closely with you and the entire executive team to fortify our association further. Your wisdom and support will be indispensable as we embark on this collective endeavor.

A warm welcome is also extended to the new members who have recently joined our esteemed association. Their diverse

expertise and experiences will undoubtedly enrich our community and contribute significantly to achieving our shared goals. I encourage all members to actively participate in our various programs and initiatives, fostering a spirit of collaboration.

Looking ahead, I am excited to outline some key initiatives and forthcoming programs for The International Medical and First Aiders Association - VejoVis. Our focus will encompass the development of esteemed research projects that not only expand the frontiers of medical knowledge but also address urgent global health challenges. Through international exchanges and collaborations, we aspire to cultivate a culture of mutual learning and innovation.

Moreover, we are committed to enhancing educational programs, providing avenues for skill development, and facilitating platforms for members to engage in meaningful discourse. By facilitating these interactions, we aim to foster a dynamic

and supportive environment wherein all members can flourish.

Your insights and expertise will be invaluable in shaping and implementing these initiatives. I am confident that, together, we can propel our association to new heights and make enduring contributions to the field of medical and first aid practices on a global scale.

Once again, I extend my deepest gratitude for your dedication, and I eagerly anticipate a fruitful collaboration that will not only benefit our association but also its members.

Vittorio Lombardo, MD FACS
VejoVis President
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The Promising Horizon of AI in Medicine

Giuseppe Strano

Editorial

Artificial Intelligence (AI) has swiftly established itself as a transformative force across myriad industries, but perhaps none stand to benefit as significantly as the field of medicine. As we stand at the intersection of technology and healthcare, the promise of AI in revolutionizing medical practices is palpable. This editorial aims to explore the current landscape of AI in medicine and shed light on the future developments and hopes that lie ahead.

In recent years, AI has demonstrated remarkable capabilities in assisting medical professionals in tasks ranging from diagnostics to treatment planning. Machine learning algorithms, powered by vast amounts of data, have shown exceptional accuracy in identifying patterns and making predictions, often surpassing human capabilities. From detecting diseases like cancer and diabetic retinopathy to optimizing treatment plans and predicting patient outcomes, AI has

proven itself to be a formidable ally in the fight against illness.

One of the most significant contributions of AI in medicine lies in its ability to augment the expertise of healthcare providers. By analyzing complex medical data, AI systems can offer valuable insights and recommendations, helping clinicians make more informed decisions quickly and accurately. This not only enhances patient care but also alleviates the burden on overburdened healthcare systems by streamlining workflows and improving efficiency.

Looking ahead, the future of AI in medicine holds even greater promise. As technology continues to advance, we can expect AI systems to become increasingly sophisticated and capable. Integration of AI with other cutting-edge technologies such as genomics, nanotechnology, and robotics opens up new frontiers in personalized medicine and targeted therapies. Imagine a world where

treatments are tailored to individual genetic profiles, and diseases are intercepted and treated at the molecular level before symptoms even manifest.

Furthermore, AI-driven predictive analytics have the potential to revolutionize preventative medicine by identifying individuals at high risk of developing certain conditions and intervening early to mitigate those risks. By harnessing the power of big data and predictive modeling, healthcare providers can shift from a reactive to a proactive approach, ultimately leading to improved health outcomes and reduced healthcare costs.

However, it is imperative to tread cautiously as we navigate this rapidly evolving landscape. Ethical considerations surrounding data privacy, algorithmic bias, and the responsible use of AI must be carefully addressed to ensure that these technologies serve the greater good without infringing on individual rights or exacerbating existing disparities in healthcare access and quality.

In conclusion, the marriage of AI and medicine holds immense promise for the future of healthcare. From enhancing diagnostics and treatment planning to

enabling personalized medicine and predictive analytics, the potential applications of AI in medicine are vast and transformative. As we continue to harness the power of technology to improve patient care and advance medical science, let us do so with a steadfast commitment to ethical principles and a vision of healthcare that is equitable, accessible, and patient-centered. The journey ahead may be fraught with challenges, but the rewards of harnessing AI for the betterment of humanity are boundless.

Giuseppe Strano

Editor-in-Chief

Vejovis Journal

Comprehensive Guide to Cardiological Problems in Surgical Procedures

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Introduction

Cardiological problems represent a formidable obstacle in the landscape of surgical procedures, intricately interwoven with patient outcomes, morbidity, and mortality rates. An adept understanding of these complexities is paramount for all stakeholders involved in perioperative care, including surgeons, anesthesiologists, and other healthcare professionals. This comprehensive guide endeavors to delve deeply into the multifaceted realm of cardiological challenges encountered within surgical settings. It not only elucidates the diverse array of issues that may arise but also examines their far-reaching implications for patient management. Furthermore, this guide aims to equip medical practitioners with a robust arsenal of strategies for both the prevention and treatment of these cardiological complications, thereby

enhancing the overall quality of care and improving patient outcomes.

Understanding Cardiological Problems

Ischemic Heart Disease (IHD): Ischemic Heart Disease, a condition characterized by inadequate blood flow to the heart muscle, emerges as a formidable concern in surgical settings. Patients grappling with IHD face an elevated risk of perioperative complications, including myocardial ischemia, myocardial infarction (MI), and cardiac arrest. The intricate interplay of factors such as pre-existing coronary artery disease, plaque instability, and hemodynamic fluctuations underscores the critical need for meticulous preoperative assessment and vigilant intraoperative monitoring. Implementing tailored perioperative management strategies, including optimizing cardiac medications, ensuring adequate oxygenation, and

maintaining hemodynamic stability, is essential to mitigate the adverse effects of IHD and uphold patient safety.

Heart Failure (HF): Heart Failure, characterized by impaired cardiac function and inadequate tissue perfusion, poses a significant challenge in the perioperative period. Patients with HF are predisposed to a spectrum of complications, ranging from pulmonary edema and exacerbation of fluid overload to arrhythmias and hemodynamic instability. The optimization of fluid status, meticulous titration of vasoactive medications, and close collaboration with cardiology specialists are pivotal in navigating the complexities of perioperative care for these individuals. Moreover, employing advanced monitoring modalities, such as invasive hemodynamic monitoring and echocardiography, enables clinicians to tailor interventions promptly and optimize outcomes in this high-risk population.

Arrhythmias: Cardiac arrhythmias, encompassing a broad spectrum of rhythm disturbances, represent a common occurrence in the perioperative period. Factors contributing to arrhythmogenesis include electrolyte imbalances, hemodynamic fluctuations, administration of anesthetic agents, and underlying

structural heart disease. Prompt recognition and targeted management of arrhythmias, such as atrial fibrillation (AF) and ventricular tachycardia (VT), are imperative to prevent hemodynamic compromise and avert adverse outcomes. Employing a multidisciplinary approach involving anesthesia providers, cardiologists, and electrophysiologists facilitates the timely implementation of interventions, including pharmacological rhythm control, electrical cardioversion, and consideration of antiarrhythmic therapy.

Valvular Heart Disease: Valvular heart diseases, encompassing conditions such as aortic stenosis, mitral regurgitation, and mitral stenosis, pose unique challenges in the perioperative setting. Patients with significant valvular pathology are susceptible to hemodynamic instability, congestive heart failure, and exacerbation of pre-existing symptoms during surgical interventions. Careful preoperative evaluation, including comprehensive echocardiographic assessment, aids in risk stratification and informs perioperative management strategies. Intraoperative considerations may include meticulous attention to hemodynamic parameters, optimization of preload and afterload, and judicious use of vasoactive medications to

maintain cardiac output and prevent decompensation. Additionally, collaboration with cardiac surgery specialists may be warranted in select cases to delineate the need for concomitant valve repair or replacement procedures.

Hypertensive Heart Disease: Chronic hypertension exerts a profound impact on cardiac structure and function, predisposing individuals to hypertensive heart disease and increased perioperative cardiovascular risks. The sequelae of uncontrolled hypertension, including left ventricular hypertrophy, diastolic dysfunction, and vascular remodeling, contribute to heightened susceptibility to perioperative complications such as myocardial ischemia, heart failure, and arrhythmias. Optimal blood pressure management, both preoperatively and intraoperatively, is paramount in attenuating these risks and optimizing perioperative outcomes. This entails a comprehensive approach encompassing lifestyle modifications, pharmacological therapy, and close monitoring of blood pressure parameters. Collaboration with primary care providers and hypertension specialists facilitates individualized risk assessment and tailored management strategies tailored to the unique needs of each patient.

Preoperative Assessment

Risk Stratification: A comprehensive preoperative assessment is fundamental in evaluating a patient's cardiac risk profile and guiding perioperative management decisions. This assessment entails a thorough review of the patient's medical history, including cardiac risk factors such as hypertension, diabetes, smoking history, and prior cardiac events. Additionally, assessing the patient's functional capacity through tools like the Duke Activity Status Index (DASI) or the 6-minute walk test provides valuable insights into their cardiovascular fitness. Utilizing risk stratification tools such as the Revised Cardiac Risk Index (RCRI) or the American College of Surgeons' Surgical Risk Calculator aids in quantifying the patient's perioperative cardiac risk and informs subsequent management strategies.

Diagnostic Testing: Tailoring diagnostic testing to the individual patient's clinical presentation and risk factors is integral to achieving an accurate assessment of cardiac function and anatomy. Electrocardiography (ECG) serves as a cornerstone in the preoperative evaluation, facilitating the detection of arrhythmias, conduction abnormalities, and evidence of

prior myocardial infarction. Echocardiography provides valuable information regarding cardiac structure and function, aiding in the identification of valvular abnormalities, ventricular dysfunction, and assessment of pulmonary artery pressures. Stress testing, either through exercise or pharmacological means, helps assess the patient's exercise tolerance, myocardial ischemia, and overall cardiovascular reserve. In select cases, coronary angiography may be indicated to delineate the extent and severity of coronary artery disease and guide revascularization decisions.

Medication Management: Optimization of preoperative medications plays a pivotal role in mitigating perioperative cardiac events and optimizing patient outcomes. Continuation of essential medications, including antiplatelet agents, beta-blockers, and statins, is generally recommended to maintain cardiovascular stability and prevent thrombotic events. However, the timing of medication discontinuation warrants careful consideration to minimize the risk of withdrawal effects and ensure optimal perioperative management. Collaboration between the surgical team, anesthesia providers, and cardiology specialists facilitates the development of

individualized medication management strategies tailored to the patient's specific clinical circumstances and perioperative risk profile. Additionally, addressing modifiable risk factors such as smoking cessation, blood pressure optimization, and glycemic control further enhances perioperative cardiovascular risk reduction efforts.

Intraoperative Considerations

Anesthetic Management: The selection and administration of anesthetic agents exert profound effects on cardiovascular dynamics, necessitating vigilant monitoring and precise titration to ensure optimal cardiac function throughout the surgical procedure. Anesthetic-induced myocardial depression, vasodilation, and alterations in sympathetic tone can significantly impact cardiac contractility, systemic vascular resistance, and rhythm stability. Close hemodynamic monitoring, including continuous electrocardiography, invasive arterial blood pressure monitoring, and assessment of cardiac output, facilitates the timely detection of cardiovascular perturbations and informs appropriate adjustments in anesthetic depth and vasopressor support. Anesthesia providers must meticulously balance the depth of anesthesia to maintain

hemodynamic stability while minimizing the risk of awareness and adverse effects on myocardial oxygen demand.

Fluid Management: Striking a delicate balance between maintaining adequate intravascular volume and avoiding fluid overload is imperative to optimize cardiac preload and tissue perfusion during surgery. Individualized fluid management strategies, guided by continuous hemodynamic monitoring and dynamic indices of fluid responsiveness, help mitigate the risk of both hypovolemia and volume overload. Utilizing crystalloids, colloids, and blood products judiciously based on ongoing assessment of hemodynamic parameters ensures optimal intravascular volume status while minimizing the potential for adverse cardiac events. Additionally, incorporating goal-directed fluid therapy algorithms and restrictive fluid protocols tailored to the patient's specific cardiovascular and surgical requirements enhances perioperative fluid management precision and improves patient outcomes.

Hemodynamic Monitoring: Invasive hemodynamic monitoring techniques, including arterial catheterization for continuous blood pressure monitoring and central venous catheterization for

assessment of central venous pressure (CVP) and mixed venous oxygen saturation (SvO₂), offer invaluable insights into cardiac function and fluid status during surgery. Real-time hemodynamic data enable prompt identification of hemodynamic instability, guiding timely intervention with fluid resuscitation, vasopressor administration, or inotropic support as warranted. Additionally, advanced monitoring modalities such as transesophageal echocardiography (TEE) provide dynamic assessment of cardiac structure and function, facilitating early recognition of myocardial ischemia, valvular dysfunction, and volume status optimization.

Arrhythmia Management: The occurrence of intraoperative arrhythmias, including supraventricular and ventricular dysrhythmias, necessitates prompt recognition and targeted intervention to prevent hemodynamic compromise and adverse outcomes. Antiarrhythmic medications, such as beta-blockers, calcium channel blockers, and amiodarone, may be administered to restore normal sinus rhythm or control ventricular rate based on the underlying rhythm disturbance. In cases of hemodynamically unstable arrhythmias or refractory ventricular tachycardia,

synchronized electrical cardioversion or temporary transvenous pacing may be indicated to restore cardiac rhythm and ensure adequate perfusion. Close collaboration between anesthesia providers, cardiologists, and electrophysiologists facilitates comprehensive arrhythmia management strategies tailored to the patient's specific cardiac pathology and perioperative risk profile, optimizing intraoperative cardiovascular stability and enhancing overall surgical outcomes.

Postoperative Care

Cardiac Monitoring: Vigilant surveillance of cardiac rhythm and hemodynamics remains paramount in the postoperative period, particularly among patients deemed high risk for cardiac complications. Continuous telemetry monitoring, complemented by periodic echocardiographic assessments and invasive hemodynamic monitoring when indicated, facilitates the early detection and management of postoperative cardiac events. Timely intervention in response to arrhythmias, hemodynamic instability, or evidence of myocardial ischemia is critical in mitigating the risk of adverse outcomes and optimizing patient recovery.

Pain Management: Adequate pain control is essential for postoperative patients to mitigate sympathetic activation, reduce myocardial oxygen demand, and minimize the risk of cardiac complications. Implementing multimodal analgesia regimens that incorporate regional anesthesia techniques, non-opioid medications, and patient-controlled analgesia strategies helps achieve optimal pain relief while minimizing the potential for opioid-related adverse effects and respiratory depression. Tailoring pain management protocols to individual patient needs and surgical requirements promotes early mobilization, enhances patient comfort, and facilitates expedited recovery.

Early Mobilization: Encouraging early ambulation and engagement in physical therapy protocols is instrumental in preventing venous thromboembolism, minimizing respiratory complications, and mitigating the risk of deconditioning in the postoperative period. However, patients with significant cardiac comorbidities necessitate a cautious approach to mobilization to mitigate the risk of cardiac decompensation. Implementing graded mobilization protocols, guided by continuous monitoring of vital signs and cardiac function, allows for safe and

effective rehabilitation while minimizing the risk of adverse cardiovascular events.

Optimization of Comorbidities:

Addressing underlying comorbidities, including hypertension, diabetes, and hyperlipidemia, is integral to promoting long-term cardiac health and facilitating postoperative recovery. Collaborative efforts between surgical teams, cardiologists, and primary care providers are essential in developing comprehensive management strategies tailored to each patient's specific needs. Optimizing blood pressure control, glycemic management, and lipid-lowering therapy through pharmacological interventions, lifestyle modifications, and patient education initiatives not only reduces the risk of perioperative complications but also promotes favorable cardiovascular outcomes and enhances overall postoperative recovery. Regular follow-up and ongoing monitoring of cardiovascular health parameters facilitate continuity of care and support optimal long-term outcomes for postoperative patients with cardiac comorbidities.

Conclusion

Cardiological issues pose intricate challenges in the context of surgical interventions, demanding a multifaceted

and collaborative approach to perioperative care. Through a comprehensive understanding of the underlying pathophysiology of cardiac disease, coupled with meticulous preoperative assessments, tailored intraoperative management, and vigilant postoperative monitoring, healthcare professionals can effectively navigate the complexities of cardiac health in surgical patients. By integrating evidence-based guidelines, continuous education, and interdisciplinary collaboration, clinicians can optimize patient outcomes and mitigate the risk of cardiac complications throughout the perioperative continuum.

Emphasizing proactive risk stratification, individualized management strategies, and prompt intervention when necessary, healthcare teams can minimize perioperative cardiac events and enhance patient safety. Moreover, fostering a culture of continuous quality improvement and adherence to best practices ensures the delivery of high-quality care to surgical patients with cardiac comorbidities.

In summary, the management of cardiological challenges in surgical settings requires a holistic and dynamic approach, where knowledge, teamwork,

and a commitment to excellence converge to achieve the best possible outcomes for patients. By prioritizing patient-centered care, staying abreast of advancements in cardiovascular medicine, and fostering a culture of collaboration and innovation, healthcare providers can navigate the complexities of perioperative cardiac care with confidence and compassion.

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Robotic Surgery for the Treatment of a Giant hepatic cyst: a case report and literature review..

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Abstract

Background

Giant cysts of the liver are uncommon and usually asymptomatic and can be left untreated. When symptoms develop the cyst is enlarging with a mass effect and treatment, either surgical or percutaneous, is necessary.

Objective

To highlight the role of robotic surgery in the treatment of giant hepatic cyst.

Case report

A 73-year-old man presented to our Clinic with a recent history of an enlarging abdominal mass and some abdominal discomfort. An U/S and a CT scan of the abdomen with contrast showed a giant hepatic simple cyst. The serology for an hidatid disease was negative. Surgery

revealed an exophytic giant simple hepatic cyst arising from liver segment V that drained 4 liters of serous fluid.

Conclusion

Simple hepatic cysts are usually asymptomatic and can develop symptoms when enlarge. They should be considered in the differential diagnosis of intraabdominal masses.

Introduction

Large cysts of the liver are uncommon³ and the cause is not known, but believed to be congenital in origin¹. Simple hepatic cysts rarely cause symptoms, however they may cause symptoms when complicated by a mass effect, rupture, haemorrhage, and infection. Large cysts can produce atrophy of the hepatic tissue

than may progress to atrophy of hepatic lobe with compensatory hypertrophy of the contralateral side⁴.

Sometimes large a hepatic cyst is adjacent to the gallbladder and the treatment may include cholecystectomy (Fig.4) and drainage of the cyst.

Treatment options include percutaneous aspiration, injection of sclerosing agents, laparoscopic or open fenestration, and surgical cystectomy⁶. In the era of Minimally Invasive and Robotic surgery, this approach seems to achieve better outcomes.

Case report

A 73-year-old gentleman presented to our clinic with a history of increasing abdominal mass in the last 5 years. An ultrasound showed a large hepatic cyst. No prior history of trauma, nor associated fever, nausea and vomiting.

On the physical examination showed an enlarged abdomen more in the right upper quadrant with a palpable mass lesion extending below the umbilicus.

Laboratory work, that included liver function test, hepatitis profile and echinococcus antibody,

Radiology work up included an ultrasound and CT of the abdomen that showed an extensive hypodense cystic mass that filled most of the right side of the abdomen.

Elective surgical treatment was planned and the patient underwent Robotic excision of liver cyst. Fig.1-2



Fig.1 DaVinci Xi console setting



Fig.2 Robotic trocars

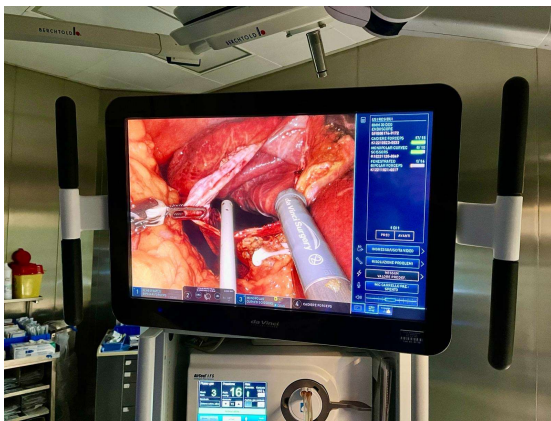


Fig.3 Cyst wall opened

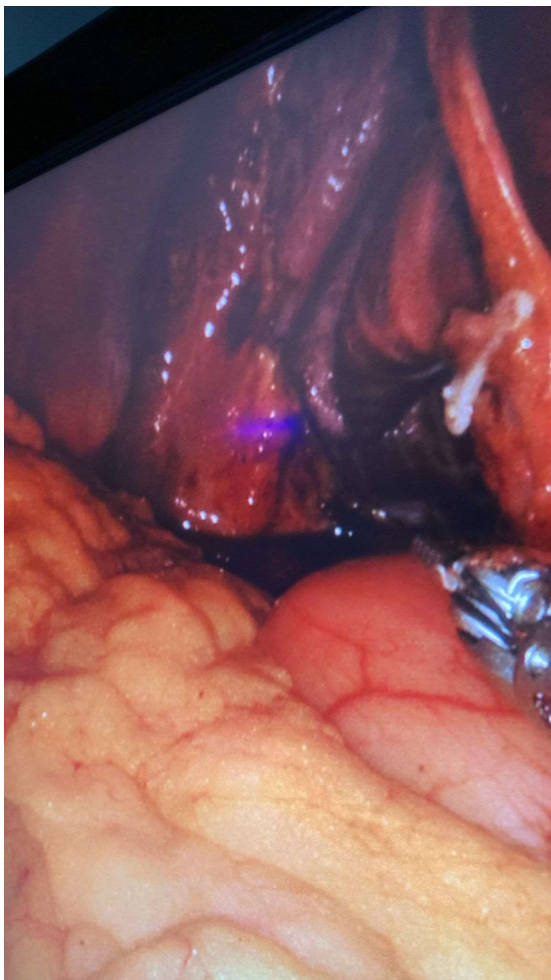


Fig.4 Cystic duct stump with hemolock clips

Content of the cyst.

A robotic excision of the cyst wall was performed with vessel sealer resulting in a wide opening of the cystic cavity (Fig.3).

The histology of the sac showed columnar epithelium resembling biliary duct epithelium (simple hepatic cyst).

The postoperative period was uneventful, oral feeding commenced on the day 1 and patient discharged on POD 3 with a follow up visit after 7 days.

Discussion

The hepatic cysts usually do not cause symptoms and occur in about 5% of the population. About 10% of patients develop secondary to massive enlargement and compression of adjacent organs².

Simple cysts are more prevalent in women with a female: male (F: M) ratio approximately 1.5. In a report, Cowles and Mulholland reported a F: M ratio of 3:1 for asymptomatic patients and when symptomatic a F: M ratio of 10:1⁷.

Simple cysts are congenital and arise as an aberration of bile duct development in utero and lined by cuboidal epithelium⁷.

Simple hepatic cysts are cystic formations containing clear fluid that do not communicate with the intrahepatic biliary tree. The size ranges from a few millimetres to massive lesions occupying large volumes of the upper abdomen.

Compression of adjacent structures may result in the following clinical features: compression of the inferior vena cava resulting in lower extremity oedema, portal vein resulting in portal hypertension, and biliary tree resulting in jaundice^{3,12}. Complications of the cyst may also result in acute abdomen from rupture, torsion and the cyst may become infected^{2,3,12}.

Radiologic imaging techniques are useful in the detection and characterisation of hepatic lesions^{3,13}. However, sonography is known to be operator dependent. Computerised tomography (CT) or magnetic resonance imaging (MRI) preoperative, are more accurate. however, the role of U/S in follow up of patients should be emphasized in order to detect ascites and recurrent cyst.

In recent years, many conventional open surgical procedures have been replaced by minimally invasive surgery³. Non-surgical methods, simple percutaneous aspiration

alone is not adequate because of associated risk of infection and recurrence is invariable⁶. Follow up results were better with the use of percutaneous aspiration especially with sclerosis. Marcho Perez et al reported successful treatment with aspiration and injection of phenol alcohol¹⁴. This procedure may lead to irreversible sclerosing cholangitis in the presence of undetected communication with the biliary tree¹⁵. Symptomatic nonparasitic cysts, even cysts of the liver (15–25cm) have been treated by laparoscopic management³.

A definitive role for Robotic surgery in selected patients is indicated especially in giant cysts that had taken up most of the abdomen, and displaced other organs. Laparoscopic management has treated symptomatic nonparasitic cysts, even cysts of the liver (15–25cm)³.

Intra-abdominal masses present diagnostic and therapeutic challenges especially in areas with limited radiographic imaging facilities. Giant simple hepatic cyst should be considered in the differential diagnosis of intra-abdominal masses.

Conflict of Interests

The authors' declare that there are no conflicts of interests.

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Keywords: Robotic surgery, giant hepatic cyst, drainage, wide excision.

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Understanding Skin Lesions: Types, Causes, and Comprehensive Management

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Introduction

Skin lesions, ranging from innocuous moles to concerning growths, serve as windows into the body's health. Understanding their nuances requires a deep dive into their classifications, causes, and management.

Classification of skin lesions is multifaceted, encompassing categories like benign, malignant, inflammatory, and infectious. Benign lesions, such as nevi (moles) and seborrheic keratoses, are typically harmless but may warrant monitoring. Malignant lesions, including melanoma and squamous cell carcinoma, pose significant health risks and demand prompt attention. Inflammatory lesions, like acne and eczema, result from immune responses or external irritants, while infectious lesions, such as warts and fungal infections, arise from microbial agents.

The causes behind skin lesions are equally diverse. Genetic predispositions play a role in conditions like psoriasis and hereditary melanoma. Environmental factors, such as UV radiation and pollutants, contribute to photoaging and skin cancer development. Lifestyle choices, like smoking and diet, also impact skin health, influencing conditions like acne and eczema.

Managing skin lesions involves a tailored approach based on their type, severity, and underlying causes. Traditional treatments include excision, cryotherapy, and topical medications. However, advancements in technology have ushered in novel interventions like laser therapy, photodynamic therapy, and immunotherapy, revolutionizing dermatological care.

This journey through the world of skin lesions unveils a tapestry woven with

genetic predispositions, environmental influences, and innovative treatments. By unraveling their complexities, we gain insight into not just dermatology but also broader aspects of health and wellness.

Types of Skin Lesions

The classification of skin lesions is a foundational aspect of dermatology, guiding clinicians in accurate diagnosis and targeted management. Understanding the characteristics and implications of each type is crucial for developing effective treatment plans.

1. **Macules and Papules:** Macules, such as freckles or moles, represent flat, discolored spots on the skin, while papules are small, raised bumps that can vary in color. These lesions often result from benign causes but may occasionally signify underlying issues, necessitating careful examination.
2. **Nodules and Tumors:** Nodules are solid, raised lesions that may penetrate deeper layers of the skin, while tumors refer to larger nodules that may be indicative of abnormal cell growth. The distinction between these entities is critical, as tumors often necessitate a more thorough evaluation for malignancy.
3. **Vesicles and Bullae:** Vesicles are small fluid-filled blisters, while bullae are larger counterparts. These lesions can result from various causes, including infections, autoimmune conditions, or allergic reactions, and their identification aids in determining the appropriate management strategy.
4. **Pustules:** Pustules are small, pus-filled lesions commonly associated with inflammatory conditions like acne or bacterial infections. Their management involves targeted therapies to address the underlying cause and alleviate symptoms.
5. **Plaques:** Plaques manifest as large, flat, raised areas and are characteristic of chronic inflammatory conditions, notably psoriasis. Effective management requires a comprehensive approach that includes topical and systemic treatments to control inflammation and promote skin healing.

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6. **Ulcers:**
Ulcers represent open sores on the skin, often stemming from a loss of surface tissue. The management of ulcers involves wound care, infection control, and addressing the underlying factors contributing to their formation.
7. **Wheals:**
Wheals, also known as hives or urticaria, are raised, itchy welts on the skin that often result from allergic reactions or other triggers such as stress or medications. They typically appear suddenly and can vary in size and shape, making their identification crucial for determining appropriate treatment.
8. **Cysts:**
Cysts are sac-like structures filled with fluid, pus, or other materials. They can develop from a variety of causes, including infections, blocked hair follicles, or genetic predispositions. Management of cysts may involve drainage, surgical removal, or other interventions depending on their size and location.
9. **Erosions and Excoriations:**
Erosions are shallow areas of skin loss, while excoriations are deeper wounds caused by scratching or rubbing. These lesions often occur in conditions such as dermatitis or insect bites and require careful wound care to prevent infection and promote healing.
10. **Lichenification:**
Lichenification refers to thickened and roughened skin with accentuated skin markings. It typically occurs as a result of chronic irritation or scratching in conditions like eczema or psoriasis. Management involves addressing the underlying cause and providing relief from symptoms such as itching and inflammation.
11. **Petechiae and Purpura:**
Petechiae are small, pinpoint-sized red or purple spots caused by bleeding under the skin, often due to conditions like platelet disorders or vasculitis. Purpura refers to larger areas of bleeding under the skin, which can have various causes ranging from trauma to systemic diseases. Identification of these lesions is essential for diagnosing and managing the underlying condition.
12. **Telangiectasia:**
Telangiectasia refers to the dilation of small blood vessels near the surface of

the skin, resulting in visible red or purple lines or patterns. These lesions can be indicative of underlying vascular conditions, such as rosacea or hereditary hemorrhagic telangiectasia. Treatment may involve laser therapy or other interventions to reduce their appearance and address any associated symptoms.

13. Scale:

Scale refers to the accumulation of flaky, dry skin often seen in conditions like psoriasis, seborrheic dermatitis, or fungal infections. These lesions can vary in size and texture and may be associated with itching or discomfort. Treatment typically involves moisturizing agents, topical steroids, or antifungal medications to alleviate symptoms and promote skin healing.

14. Atrophy:

Atrophy involves the thinning of the skin, resulting in a decrease in its thickness and loss of underlying structures. It can occur secondary to various factors, including prolonged use of topical steroids, aging, or certain medical conditions such as connective tissue disorders. Management may focus on addressing the underlying

cause and minimizing further damage to the skin.

15. Hyperpigmentation/Hypopigmentation

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Hyperpigmentation refers to areas of the skin that are darker than the surrounding skin due to an excess of melanin production, while hypopigmentation refers to areas that are lighter than the surrounding skin due to a decrease in melanin production. These changes in skin pigmentation can occur as a result of sun exposure, inflammation, hormonal changes, or certain medications. Treatment may involve topical agents, laser therapy, or other interventions to address pigmentation irregularities and restore skin color balance.

16. Erythema:

Erythema is the redness of the skin caused by increased blood flow to the area, often indicating inflammation or irritation. It can be a prominent feature of various skin conditions, including eczema, rosacea, or sunburn. Treatment typically involves identifying and addressing the underlying cause, along with measures to reduce inflammation and soothe the skin.

Causes of Skin Lesions

Understanding the etiology of skin lesions is fundamental to developing tailored treatment plans. The diverse array of causes reflects the intricate interplay of genetic predispositions, environmental factors, infections, and inflammatory processes.

Infections:

Skin lesions resulting from infections can be bacterial, viral, or fungal in origin. Conditions such as impetigo, ringworm, or herpes infections present with characteristic lesions, and targeted antimicrobial therapies are essential for effective management.

Inflammatory Conditions:

Autoimmune diseases, including psoriasis and lupus, can lead to chronic inflammatory skin conditions. The immune system's aberrant response results in specific types of skin lesions, necessitating immunomodulatory therapies for optimal management.

Allergic Reactions:

Allergic reactions can manifest as various skin lesions, including hives, eczema, or

contact dermatitis. Identifying and avoiding allergens is crucial, and advanced diagnostic tools contribute to a more nuanced understanding of individual sensitivities.

Neoplastic Conditions:

Skin cancers, such as melanoma, basal cell carcinoma, and squamous cell carcinoma, present as malignant skin lesions. Early detection through advanced diagnostic techniques is pivotal for successful treatment and improved prognosis.

Genetic Factors:

Certain skin lesions, such as moles or birthmarks, may have a genetic basis. Advances in genetic testing not only aid in identifying predispositions but also contribute to personalized monitoring and early intervention strategies.

Comprehensive Management of Skin Lesions

The management of skin lesions has evolved significantly with advancements in medical science and technology. Tailoring interventions based on the type of lesion, its underlying cause, and individual patient factors is integral to achieving optimal outcomes.

Topical Treatments:

Topical therapies have undergone notable advancements with the development of innovative formulations and drug delivery systems. Nanotechnology-based formulations enhance the penetration of active ingredients, improving the efficacy of treatments for conditions like acne, eczema, or psoriasis.

Systemic Medications:

Precision medicine has transformed the landscape of systemic treatments for skin lesions. Targeted therapies, immunomodulators, and biologics offer personalized treatment options with reduced side effects compared to traditional systemic medications.

Surgical Intervention:

Minimally invasive surgical techniques, including Mohs micrographic surgery, provide precise removal of lesions while preserving healthy tissue. These advancements contribute to improved cosmetic outcomes and reduced recovery times.

Phototherapy:

Phototherapy, a well-established treatment for conditions like psoriasis, has evolved with the introduction of targeted phototherapy devices. Excimer lasers offer controlled exposure, minimizing the risk of adverse effects associated with broader UV light exposure.

Emerging Therapies:

Ongoing research into gene therapies and stem cell treatments holds promise for the future of skin lesion management. Advanced diagnostic tools, such as dermoscopy and reflectance confocal microscopy, contribute to more accurate diagnoses, guiding treatment decisions.

Conclusion

In conclusion, the exploration of skin lesions is a dynamic journey through the intricate realms of dermatology, genetics, and medical innovation. From benign moles to potentially malignant tumors, each lesion tells a unique story about the body's health and susceptibility to environmental factors. Advances in diagnostics, treatment modalities, and our understanding of genetic influences continue to shape the landscape of dermatological care.

The future holds the promise of even more personalized and targeted approaches to skin lesion management. Collaborative efforts between patients, dermatologists, and researchers are pivotal in unraveling the complexities of skin lesions, ensuring timely interventions, and ultimately promoting optimal skin health and overall well-being.

Conclusions

In summary, the exploration of skin lesions is a captivating journey that traverses the intricate domains of dermatology, genetics, and medical innovation. From innocuous freckles to potentially malignant growths, each lesion narrates a unique tale about the body's health and its interactions with the environment. These manifestations underscore the importance of keen observation, thorough evaluation, and precise intervention in dermatological practice.

As we delve deeper into the realm of skin lesions, advancements in diagnostics, treatment modalities, and genetic insights propel us towards more nuanced and tailored approaches to care. Cutting-edge technologies such as genomic sequencing and molecular profiling offer

unprecedented insights into the genetic underpinnings of dermatological conditions, paving the way for personalized therapies and targeted interventions.

Moreover, collaborative efforts between patients, dermatologists, and researchers are pivotal in unraveling the complexities of skin lesions. By fostering a multidisciplinary approach, we can leverage collective expertise to decipher the intricate mechanisms underlying various dermatological conditions. This synergy enables us to deliver timely interventions, optimize treatment outcomes, and enhance patient satisfaction and well-being.

Looking ahead, the future holds the promise of even more refined and personalized strategies for skin lesion management. With ongoing research, innovation, and a deepening understanding of the intricate interplay between genetics, environment, and lifestyle factors, we are poised to usher in an era of precision dermatology. By embracing these advancements and nurturing collaborative partnerships, we can aspire to a future where every individual receives the tailored care they deserve, ensuring

optimal skin health and overall well-being for all.

Conflict of Interests

The authors' declare that there are no conflicts of interests.

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Excelling in Patient Management within Private Healthcare: Best Practices for Medical Assessment and Aesthetic Treatment

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Introduction

Patient management within private healthcare necessitates a delicate balance between delivering top-tier medical care, ensuring patient satisfaction, and navigating the dynamic landscape of healthcare expectations. This article delves into the intricacies of effectively managing patients in private practice, focusing on both medical assessment and aesthetic treatment, all underscored by a strong commitment to ethical considerations and patient-centered care.

The Foundation of Patient Management in Private Healthcare

In the realm of private healthcare, excellence in medical care is imperative. This begins with an unwavering dedication to continuous learning and staying updated with the latest advancements in medical science. Diagnostic precision is equally

vital – the ability to accurately assess and diagnose medical conditions through thorough evaluations and cutting-edge diagnostic tools. Treatment efficacy follows suit, with evidence-based protocols and personalized care plans tailored to each patient's unique needs. All of this underscores the importance of ongoing professional development and a steadfast commitment to clinical excellence.

Patient satisfaction serves as the cornerstone of a thriving private practice. Effective communication, timely access to care, patient education, and responsive feedback mechanisms are crucial components of patient-centric care. Clear, empathetic communication fosters trust and meaningful doctor-patient relationships, while patient education empowers individuals to take an active role in their healthcare journey. Additionally, soliciting and acting upon

patient feedback ensures that the practice remains responsive to evolving patient needs and preferences.

Meeting the expectations of the healthcare landscape necessitates a proactive approach to regulatory compliance, technological integration, adaptability, and collaboration. Adhering to regulatory requirements and ethical guidelines ensures patient safety and upholds professional integrity. Embracing technology enhances efficiency and communication, while fostering a culture of adaptability and innovation enables practices to thrive in a rapidly changing environment. Collaborative care, both within the practice and with external stakeholders, ensures that patients receive comprehensive, coordinated care that addresses their holistic needs.

Medical Assessment in the Private Healthcare Setting

Comprehensive medical assessments form the bedrock of effective patient care. This entails meticulous history-taking, thorough physical examinations, and judicious use of diagnostic testing. A multidisciplinary approach, involving specialists from various medical disciplines, ensures a

holistic understanding of the patient's health status and facilitates collaborative decision-making.

Personalized care plans are the hallmark of private healthcare. Tailoring treatment strategies to each patient's unique needs and preferences, while engaging them in shared decision-making, fosters a sense of ownership and empowerment. Continuity of care, through regular follow-up and monitoring, ensures that patients receive ongoing support and adjustments to their care plans as needed.

Aesthetic Treatment in Private Healthcare

Ethical considerations are paramount in aesthetic medicine. Obtaining informed consent, prioritizing patient safety, maintaining professional integrity, and respecting patient autonomy are foundational principles. A patient-centered approach, guided by artistic vision and supported by technological advancements, ensures that aesthetic interventions align with patients' goals and values. Outcome evaluation, coupled with patient feedback, drives continuous improvement and ensures that patients are satisfied with their results.

Establishing Trust and Communication

Building a strong foundation of trust and effective communication is paramount in managing patients in the private sector. Patients seek private healthcare for various reasons, including personalized attention, quicker access to services, and enhanced privacy. It is essential to establish trust by actively listening to patients, addressing their concerns, and involving them in decision-making processes regarding their care.

Comprehensive Medical Assessment

A thorough medical assessment is crucial for accurate diagnosis and treatment planning. In the private sector, healthcare providers have the advantage of dedicating more time to each patient, allowing for a more comprehensive evaluation. This includes obtaining a detailed medical history, performing physical examinations, and ordering relevant investigations, such as laboratory tests or imaging studies.

Tailored Treatment Plans

Once a diagnosis is established, healthcare providers in the private sector can develop

personalized treatment plans tailored to each patient's unique needs and preferences. Whether it involves medical interventions, surgical procedures, or aesthetic treatments, the emphasis should be on delivering high-quality care that aligns with the patient's goals and expectations.

Ethical Considerations

Ethical considerations play a significant role in managing patients in the private sector. Healthcare providers must adhere to ethical principles such as beneficence, non-maleficence, and respect for patient autonomy. This includes obtaining informed consent, maintaining patient confidentiality, and ensuring transparency in billing practices.

Continuity of Care

Ensuring continuity of care is essential for managing patients effectively in the private sector. This involves establishing long-term relationships with patients, coordinating care across different healthcare providers and specialties, and providing ongoing support and follow-up to monitor treatment outcomes and address

any concerns or complications that may arise.

Patient Education and Empowerment

Empowering patients through education and information is key to successful patient management in the private sector. Healthcare providers should take the time to educate patients about their conditions, treatment options, and potential risks and benefits. This enables patients to make informed decisions about their care and actively participate in their treatment plans.

Conclusion

Managing patients in the private sector requires a holistic approach that prioritizes trust, communication, and patient-centered care. By adhering to best practices in medical assessment, treatment planning, ethical considerations, continuity of care, and patient education, healthcare providers can ensure the delivery of high-quality services that meet the needs and expectations of their patients.

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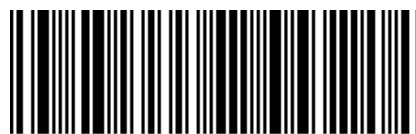




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