Archives of Cancer Science and Therapy

Volume - 4, Issue - 1

Research Article **Published Date:-2020-10-07 00:00:00**

Anti COVID-19 immunity developed as assessed in a community-based oncological center

Introduction: Serology (antibody) tests for the SARS-CoV-2 have been proposed as an instrument to inform health authorities about immunization during the COVID-19 pandemic. As there is a significant part of the population that may have some degree of immunity, it is of great interest to communicate the immunization results obtained in the first 500 healthcare workers (HCW), patients and relatives tested in a community-based Oncological Center.

Materials and methods: Between April 9th, 2020 and May 8th, 2020, a group of healthcare workers (HCW), their families, and general public who had had the COVID-19 or had been in close contact with confirmed cases of COVID-19 were screened for IgG SARS-CoV-2 antibodies. The tests were carried out in a rigorous manner, strictly following the guidelines approved by the Spanish Ministry of Health (Ministerio de Sanidad).

Results: The major objective of this study was to determine the proportion of asymptomatic infected individuals and those who had already secreted IgG against SARS-CoV-2 in our cancer treatment center or in the community of Barcelona. Patients were tested with PCR, Rapid diagnostic test (RDT) or enzyme-linked immunoabsorbent assay (ELISA). A total of 521 participants were tested, 206 with RDT and 315 with ELISA, 59 (11,32%) resulted positive to SARS-CoV-2.

Conclusion: RDT and ELISA proved to be effective and sensible enough to determine the extent of SARS-CoV-2 immunization in a community-based oncological center. The degree of immunization reached is nowadays far away from what can be considered desirable for a herd immunization.

Research Article **Published Date:-2020-05-25 00:00:00**

Vaginal embryonal rhabdomyosarcoma in young woman: A case report and literature review

Rhabdomyosarcomas are the most common soft tissue tumors of childhood. They are characterized by their poor prognosis. Vaginal location is very rare after puberty and exceptional in the post menopause. Treatment is based on several therapeutic measures combining neoadjuvant chemotherapy followed by surgery and/or external beam radiation therapy. We report herein the case of a 25 years-old woman, presented with vaginal embryonal RMS revealed by metrorrhagia and pelvic pain. The diagnosis was confirmed by biopsy and histopathological study. Pre-treatment workup was negative for metastatic disease. She has received chemotherapy based on vincristine, doxorubicin, and cyclophosphamide. The clinical evolution was marked by improvement of symptoms, unfortunately the patient died following febrile neutropenia after the third cycle of chemotherapy.

Research Article **Published Date:-2020-04-30 01:00:00**

3D software reconstruction for planning robotic assisted radical nephrectomy with level III caval thrombus

---

Inferior vena cava (IVC) involvement by intraluminal extension of tumor is infrequent, occuring in 4% to 10% of patients with renal cell carcinoma (RCC) [1-5]. Based on the cephalic extension of the thrombus, Mayo [6] described a classification of inferior vena cava thrombi in 4 categories, which has implications on surgical complexity, estimated blood loss (EBL) and peri-operative complications, but not cancer-specific survival [2,7]. Level III IVC thrombus is classified as being located in the retro-hepatic IVC below the diaphragm. Total resection of this tumor is the best chance of cure when no distant metastases are present [4,8]. Actually, open radical nephrectomy with concomitant thrombectomy is still the standard treatment. This procedure is technically challenging and involves a large incision and prolonged convalescence [9]. Recently, the feasibility of robotic IVC thrombectomy has been demonstrated, with potential lower EBL and shorter hospitalization and convalescence [7,10-14]. This surgery requires thorough knowledge of surgical anatomy, detailed pre-operative preparation and meticulous robotic technique [7]. The key point in the surgical management is the correct assessment of the extension of the endocaval thrombus, what is mainly based on radiological examinations [8]. Although Ultrasonography (US) and computerized tomography (CT) are useful in demonstrating the extent of the thrombus, CT is not always accurate in delineating the superior margin of the tumor in the IVC. More precisely, magnetic resonance imaging (MRI) can demonstrate a tumor thrombus and its extension, besides signs of wall invasion, being extremely useful to surgical procedure planning [8,15]. Vena cavography is not additive to US, CT, and MRI, and it increases the risk of contrast-associated renal injury [4,8]. However, new modern image technologies has emerged to help surgical planning, as three-dimensional visualization technique (3DVT) based on routine CT or MRI processed image data [16-20]. Recently, a comparative study showed advantage of 3DVT in management of complex renal tumor during laparoscopic partial nephrectomy [20]. This modality is able to demonstrate anatomy relations, allowing the surgeon to observe the relationship between targeted tumor and peripheral structure before surgery and perform virtual manipulation. This kind of preoperative accurate assessment can enhance surgeons confidence of surgical procedure and decrease surgical risk and incidence of complications [20]. There is no report in the literature of the use of this type of technology in cases of IVC tumor thrombus.

We present the use of 3D holographic interactive reconstruction in a single case of robotic radical nephrectomy with level III IVC thrombectomy.

Research Article **Published Date:-2020-04-30 00:00:00**

[“Maximum Preservation Radical Prostatectomy”: Oncological, functional and other contemporary aspects of Retzius Sparing Robotic Assisted Radical Prostatectomy]

The surgical treatment of prostate cancer (PCa) had as its initial milestone the first prostatectomy, performed by H.H. Young at the Johns Hopkins Hospital, in 1904 [1], however, the procedure only reached a fundamental role after 1982, based on a better understanding and description of the male pelvic anatomy, by Walsh [2-6] and other [7-11]. Subsequently, minimally invasive approaches emerged: laparoscopic prostatectomy (1992) [12] and robot-assisted laparoscopic prostatectomy (RALP) (2000) [13], which modified and optimized the execution of key surgical steps of this procedure, such as bladder neck preservation, nerve-sparing dissection, and prostate apex management [14].

Research Article **Published Date:-2020-04-29 00:00:00**

[Electrocoagulation with greased lidocaine gel 2% as hemostatic maneuver after minimally invasive partial nephrectomy: Experimental and preliminary clinical results]

Methods: Experimental phase: Performed a partial nephrectomy off clamp in pig model followed by cauterization of lidocaine gel 2% with different power (control, 30W, 50W and 100W) in the kidney resection bed to evaluate efficacy and deep injury extension.

Clinical phase: 20 patients submitted to laparoscopic or partial nephrectomy for low risk RENAL score were utilized greased lidocaine gel 2% with 50W in cautery scalpel to hemostasis of renal parenchima to validate efficacy and safety.

Results: Experimental study shows that this technique is effective and promote better hemostasis with 50W and 100W, with deep injury of less than 3 mm.

Clinical study confirm efficacy, good control of hemorrage, few complications and no transfusion. Minimal changes in hematocrit, haemoglobin and creatinine were observed.

Conclusion: In this preliminary experience the use of this new alternative to hemostasis for low risk partial nephrectomy was satisfactory and with good intra and postoperative results.

The best advantages were safety in terms of the depth thermal injury, low cost and absence of artifacts over the resection area observed at CT scan postoperatively.

Research Article **Published Date:-2020-04-23 03:00:00**

Minimally invasive gracilis muscle transposition: Initial report

Rectourethral fistula (RUF) is a divesting complication after prostate cancer treatment. The RUF incidence after radical prostatectomy is about 0.5% to 2%, [1,2]. Radiotherapy, criotherapy and high intensity focused ultrasound are other more severe causes [3,4].

Repair of RUF is a challenging surgical procedure. There are some possible approaches but transperineal is the most utilized.

In cases of complex fistulas interposition of muscle flaps between the rectum and urethra is highly recommended. Gracilis muscle transposition (GMT) is the preferred, due to excellent mobility and vascularization for perineal reconstruction [5,6]. Dissection of the gracilis muscle is done using one, 2 or 3 large incisions in the medial border of the thigh.

The aim of this report is present a new minimally invasive access to obtain a pediculate flap of gracilis muscle to interposition between bladder and rectum to treat RUF.

Editorial **Published Date:-2020-03-31 00:00:00**

Palliative care approach to oncological patient – Main points

---

According to the World Health Organization definition, palliative care is an approach aimed at increasing the quality of life of patients and their relatives by addressing physical, psychosocial and spiritual needs and treating conditions early, such as pain while they are coming to terms with a life-threatening disease [1]. Palliative care services have started a rapid progress in developed countries such as Scandinavian countries, England and Canada since the beginning of 1990 [2].

Although palliative care cares for any patient who is in need of care, whether bed-bound or unable to look after themselves, one of the main area of interest is of course oncological patients and their relatives. Patients with advanced cancer, frequent sufferings from physical and psychological symptoms - primarily pain, reduced functional capacity, and reduced quality of life are in the scope of palliative care protocol [3].

The most common end-of-life symptoms and signs in palliative cancer patients are pain, anorexia, nausea, cachexia, weakness, dyspnea, ascites, anxiety, agitation, delirium, confusion and pressure sores. In order to achieve quality and continuous care in case management, a family doctor, specific branch specialist, nurse, dietician, psychologist, cleric, etc. should work together in a multidisciplinary approach and clinical guidelines and care protocols should be implemented [4]. However, it should be kept in mind that increasing the medication dose may not always be beneficial to the oncological patients in palliative services. The goal should always be maximum benefit with minimal tests and treatment.

Palliative care does not aim to accelerate or postpone death; but it has many benefits in cancer patients and their relatives including the integration of the psychosocial and spiritual aspects of patient care into physical care, providing support for patients to live as active as possible until the last moment, improving the quality of life and the disease process, providing help and support in the grieving process [1,5].

Providing good care to advanced cancer patients requires that caregivers are educated and supported about their patients' physical, psychological and social care needs. Balancing the physical and emotional needs of the caregivers will reduce the stress they experience, as well as increase the quality of life of their patients [6,7]. Professionalism in palliative care comes into play right at this point.

There is no consensus in the medical world about by whom, when and to whom palliative care should be given. In this regard, the conflicts of opinion between specific branches such as anesthesia, internal medicine and neurology are inevitable. We think that the team leader should be a family physician or a palliative care specialist. The reason for this is the family medicine's principles of core competencies including biopsycosocial, holistic, comprehensive approach and equal distance to specific branches. Of course when the palliative care specialist is the team leader the patient's own family doctor still provides invaluable service because of his intimate and long-term knowledge about the patients.

One key difference in some countries is that no distinction is being made between palliative and hospice care. Neither the insurance companies nor the state demands such classification because it doesn't serve any practical purpose at the moment. However, in due time such distinction will be inevitable as one of the cost-cutting measure. Medical oncology will have to report about the expected survival of the cancer patients and it will further increase their workload given the exponential increase in cancer cases.

Review Article **Published Date:-2020-03-19 00:00:00**

Vegetables associated with reduced risk of cancer

The present study aimed to investigate and identify the association between the intake of allium vegetables and colorectal cancer (CRC) in population. A hospital?based matched case?control study was conducted between June 2009 and November 2011 in three hospitals. Eight hundred thirty three consecutively recruited cases of CRC were frequency matched to 833 controls by age (within 2.5 years of difference), sex, and residence area (rural/urban). Demographic and dietary information were collected via face?to?face interviews using a validated food frequency questionnaire. Adjusted odds ratios (aORs) and 95% confidence intervals (CIs) were estimated by using unconditional logistic regression.

Research Article **Published Date:-2020-02-25 00:00:00**

A retrospective study for Colorectal Cancer in Vlore, Albania-suggestions for further implications

Objective: Colorectal cancer is one of the most commonly occurring cancers in men and women worldwide as well as one of the most common causes of death from cancer. It has a higher prevalence in men than women. The treatment of colorectal cancer (surgically or through chemotherapy) severely affects both patients and their families. The objective of the study was to identify cases of colorectal cancer, evaluate their demographic and clinical data, and identify any statistical relationship.

Methods: This is a retrospective study. The data were collected through the revision of cancer patients' files in the Chemotherapy Center at Vlore Regional Hospital, Vlore, Albania. The analysis included files from 2015-March 2019. A total of 72 patients' files with colorectal cancer were analyzed.

Result: Mean age of patients 66.36 ± SD10.99 years old, range 38-86. Most of the patients were male (n = 45) and with colon cancer type (n = 44). 19 patients had treatment with surgery, radiation, and chemotherapy. 56.34% of patients with colorectal cancer are still alive. The results of the study are the same as the global trend in terms of age, gender, type of cancer but not in terms of years of survival, which appear lower.

Conclusion: The study suggests that in demographic terms patients with colorectal cancer have no difference from world trend. There was also a marked lack of documentation regarding the clinical data of patients. The complete and accurate documentation of cases with colorectal cancer is recommended to develop quality models of nursing care as well as to design effective promotional and preventive campaigns for colorectal cancer.

Mini Review **Published Date:-2020-02-18 00:00:00**

Chlorhexidine and oral cancer: A short review

Owing to the ever westernizing lifestyles in developing countries like India, the escalation of oral cancer patients are in need of urgent plan of action. With tobacco being the commonest cause for causation of oral cancer, Global Adult Tobacco Survey, 2016-17 revealed that almost 28% of whole population of India is consuming tobacco in either smoking or smokeless form. With these increasing numbers, the expected death toll to be expected to touch 1-2 million mark by the year 2035 [1].

Although, the current Onco-medicine fraternity excels in rendering care to oral cancer patients in the form of surgeries, chemotherapy and radiation-therapy. Often, these treatment modalities impart some unwanted adverse effects like, docetaxel (DCT) is known for its hepatotoxicity [2,3] whereas, one of the commonly used cisplatin (CIS) presents with nephrotoxicity, neurotoxicity, bone marrow suppression and vomiting [4,5]. Literature suggests of many non conventional medicaments being tested in past for their anti onco-genic effect, where few being effective and others being questionable ones. Chlorhexidine being one among them showing some how promising anti onco-genic activity with feeble amount of studies being conducted in past.

Chlorhexidine, one of the most commonly prescribed mouthrinse in the field of dentistry, with varying concentrations of 0.12% and 0.2% concentrations. Although, apart from being broad spectrum antibiotic, its capability to dismantle the protein – protein bond between anti – apoptotic Bcl-2 family protein Bcl-xL and its pro – apoptotic binding partners [6]. The current study was conducted on three cell lines of squamous cell carcinoma (SCC-4, SCC-9, SCC -15) and two pharynx carcinoma cell lines (FaDu and Detroit 562). The compounds induced apoptosis through mitochondria dependent apoptotic pathway in oral tumour cell lines. Another study conducted to assess the similar anti – oncogenic activites of chlorhexidine mouthrinse along with cranberry [7]. It was evident from results that, with increasing concentrations of chlorhexidine mouthrinse, there was increase in mean percent growth inhibition. The authors concluded saying, chlorhexidine has showed both anti cancerous as well as anti bacterial activity required to tackle common oral infections, part of common anti cancer therapy. Fernando Martínez-Pérez et al (2019) conducted study, where antitumor activity of Lipophilic Bismuth Nanoparticles (BisBAL NPs) and chlorhexidine on human squamous cell carcinoma was assessed using energy dispersive X – ray spectroscopy in conjunction with scanning electron microscopy (EDS-SEM). Study revealed, BisBAL NPs and chlorhexidine both showed cell growth inhibition on both cancer cell line (CAL-27) and human gingival fibroblasts (HGFs). Although, chlorhexidine showed non specific cytotoxicity for both tumoral and non tumoral control cells. The suggestive mechanism of action might be loss of cell membrane integrity [8].

Although Eliot MN (2013) conducted study, to assess the risk of head and neck squamous cell carcinoma secondary to use of alcohol containing and non alcoholic mouthwashes including chlorhexidine. The study was concluded with an assumption based on chlorhexidine mouthwash alters the oral flora [9], thus resulting in increasing risk exponentially through diverse change in oral bacteria and altered immune response with contribution towards genesis or promotion of cancer [10]. On the contrary, alcohol consumption and smoking are predisposing factors towards upper digestive tract cancer. The main causative factor being the first metabolite of alcohol, acetaldehyde. And much higher levels are derived from oral bacteria and thus, same can be altered in favour through usage of chlorhexidine mouthwash, to avoid excessive production of acetaldehyde intra orally.

In conclusion, chlorhexidine mouthwash has been into dental practice since long and the role it plays in either ways has to be assessed by a multi dimensional study with cell lines including that of control to derive better compared conclusions.