Archives of Cancer Science and Therapy

Volume - 6, Issue - 1

Research Article **Published Date:- 2022-11-23**

Determination of the in vivo activity of leaves extract of Zanthoxylum Chiloperone var. Angustifolium (Tembetary hú) orally and intralesionally administered to BALB/c mice experimentally infected with Leishmania

Natural products are becoming increasingly important as an unlimited source for obtaining chemical substances with possible pharmacological potential. Current existing drugs for the treatment of cutaneous leishmaniosis produce major side effects; therefore the search for new drugs is justified. The stem bark of Zanthoxylum chiloperone var. Angustifolium Engl. (Rutaceae) is traditionally used in Paraguay for its antiparasitic properties. The leaf extract was evaluated for the first time to determine its leishmanicidal activity in BALB/c mice infected with amastigote forms of Leishmania amazonensis (PH8). The mice were treated orally with the extract at three concentrations (100, 50 and 10 mg/mL), intralesional (50 mg/mL), and subcutaneously using glucantime as a control (100 mg/mL). The percentage of decrease in parasite load was measured and with intralesional 50 mg/kg a reduction of 72% occurred, with the reference drug (Glucantime) a reduction of 62% was obtained with the same oral dose a reduction of 50%, while with an oral dose of 10 mg/mL the percentage of reduction was 55%. When the oral dose was increased to 100 mg/mL, the reduction percentage of the parasitic load was only 16%. These results indicated that the leaf extract of Z. chiloperone var. angustifolium Engl. at low oral concentrations (50 and 10 mg/mL) had very good activity against L. amazonensis, and it was even more efficacious intralesionally at 50 mg/mL but at the oral dose of 100 mg/kg has very reduced antiparasitic activity. This study showed the efficacy of the extract leaves of Z. chiloperone in reducing the parasite load in an in vivo test, so its use as a potential leishmanicidal could be suggested to develop and evaluate new drugs for the oral treatment of leishmaniosis disease with fewer side effects and lower cost.

Short Communication **Published Date:- 2022-11-14**

How to avoid partial implantation of people with cochlear malformation

Many advances have been made in recent years in the development of hearing and cochlear implants. These use acoustic and electrical stimulation technologies to improve speech intelligibility for the hearing impaired. However, for cochlear prostheses, the results are not very promising and vary from one patient to another. Certain technical and sometimes physiological problems have limited the expected performances of these devices, especially for children and the elderly. These problems include cochlear malformation and ossification of the auditory channels. This led us to reduce the number of electrodes in order to allow quality deep insertion while preserving the low-frequency acoustic bands of the operated patient.

Research Article **Published Date:- 2022-10-14**

Colorectal cancer: physical activity, obesity and consumption of foods a case-control study in the east of Algeria

Purpose: To evaluate the role of dietary components, physical activity, smoking and Obesity in colorectal cancer.
Materials and methods: With a population-based case-control study, 49 colorectal cancer patients and 72 controls were interviewed with uniform questionnaires. Conditional logistic regression was used for multivariate analysis of colorectal cancer. A total of 121 pairs of case controls were interviewed.
Results: Relationship between body mass index (BMI) and colorectal cancer was shown in this study, obesity was shown in 21 patients (42.86) before cancer and in 0% of patients during colorectal cancer. Physical activity was a significant risk factor $p < 0.0001$. Malnutrition was noted in 48 patients (97. 96%) according to Brachial muscular circumference in patients with colorectal cancer ($p = 0.002$). Daily consumption of sugar Khi² of Wald (5.423) and butter Khi² of Wald (7.694) is higher in cases than in controls. During that time, high daily consumption of pasta ($p = 0.018$) and vegetables ($p = 0.045$) was a protective factor for colorectal cancer.
Conclusion: Colorectal cancer in Algeria was related to dietary and environmental factors. The research results support the colorectal cancer etiological hypothesis of deficiency vegetable and high consumption of lipids and sugar. Obesity and lack of physical activity were also correlated with colorectal cancer.

Research Article **Published Date:- 2022-09-19**

[The combination of very-small size proteoliposomes and alum is a safe adjuvant alternative for inducing anti-EGF antibodies: a preclinical study]

Immunization with human recombinant EGF chemically bound to the P64k protein of Neisseria meningitides (hrEGF-P64k) and adjuvanted in Montanide ISA 51 VG (Montanide) is an efficient strategy to induce polyclonal antibodies (PAbs) response targeting this self -antigen in cancer patients, which is the basis of the CIMAvax-EGF vaccine. The neutralizing potential of EGF-specific induced PAbs supports promising clinical data obtained to date with this vaccine. Herein, we evaluated a combination of very small-size proteoliposomes (VSSP) and aluminum hydroxide (Alum) as a novel adjuvant to induce specific PAbs with neutralizing and anti-proliferative properties on tumor cells, considering EGF as a model antigen. Toxicity at the injection site was not detected for the vaccine formulation containing VSSP/Alum, and it was immunogenic in BALB/c mice, as evidenced by the induction of high titers of EGF-specific polyclonal antibodies (PAbs). While schedule optimization increased the magnitude of the PAbs response induced by VSSP/Alum, induced PAbs's avidity and intrinsic neutralizing potential were comparable to the humoral response induced by Montanide. Also, VSSP addition switched IgG subclasses distribution into a Th1-like pattern, as obtained with Montanide and desirable for a cancer vaccine. Finally, equivalent PAbs titers were induced by the vaccine formulations adjuvanted in VSSP/Alum or Montanide in tumor-bearing-mice, and immunosuppressed mice, suggesting the feasibility of the VSSP/Alum combined adjuvant for inducing anti-EGF antibodies in cancer patients at advanced stages of the disease.

Case Report **Published Date:- 2022-09-03**

[Prostate health in India (BPH & Prostate Cancer)]

The prostate gland, found only in men, is an extremely important organ of the reproductive system, but it is not taken care of adequately, leading to prostate inflammation and benign hypertrophy or even cancer. Benign prostate enlargement compresses urine flow through the urethra, leading to uncomfortable urinary symptoms. Hyperplasia increases the risk of bladder stones, urinary tract infections, and kidney problems. In India prevalence of Benign Prostrate Hyperplasia (BPH) is around 50% of men by the age of 60 years. Studies suggest that benign prostatic hyperplasia is a result of the disproportion between oestrogen & testosterone. A higher proportion of oestrogen within the prostate boosts the growth of prostate cells. The management of BPH is streamlined in recent times and the majority are on medical treatment.
Prostate cancers are one of the cancers showing a significant increase in incidence along with mouth and kidney and lung cancers among the male population. With an estimated population of 1400 million and about 98 million males over 50 years of age in mid-2022 and the average life expectancy increasing 68.4 years, has a bearing on the changing incidence and pattern of prostate cancer in the current decade in India. Based on the five population-based cancer registries in 2009-10, the age-adjusted annual incidence rates per lakh population of prostate cancers were highest in Delhi (10.2) followed by Bengaluru (8.7), Mumbai (7.3), Chennai (7) and Bhopal (6.1). Cancer can co-exist with BPH. Prostate cancer management is still in the development stage with a 5-year life expectancy of around 64%.
The prostate is the second leading site of cancer among males in large Indian cities like Delhi, Kolkata, Pune, and Thiruvananthapuram, and the third leading site of cancer in cities like Bangalore and Mumbai. Despite the limitations of diagnosis, the annual cancer incidence rate ranges from 5.0-9.1 per 100,000/year, as compared to the rates in the United States and other developed countries of 110 &180 for whites and blacks respectively.
This article is a review of Prostate health in India based on a personal observation of around 183 cases by the author in the last 10 years.
Materials & methods: This is an observational study report of three cohorts of men across the country. The sample was of people encountering the author. The sample included i) 69 septuagenarians plus ii) 30 senior citizens aged 60 - 70 years and iii) 84 men in 40 – 60 - year age groups over the last decade. The data source was sharing annual check-up reports or consultation report in person for seeking 2nd opinion. A minimum of 2 consultations, first when diagnosed and the recent between July 2021 to June 2022.

Short Communication **Published Date:- 2022-07-25**

[Evaluation of long antigen exposition dendritic cell therapy (LANEX-DC®) in the adjuvant treatment of pancreatic cancer – results of a single center analysis]

Introduction: Even after surgical resection and adjuvant chemotherapy in pancreatic cancer the 5-year disease-free survival times (DFS), as well as overall survival rates (OS), are still low and median survival times are below 2 years. Here we retrospectively analyzed the outcome of immunotherapy in the additional adjuvant treatment of pancreatic cancer with long antigen exposition dendritic cell therapy (LANEX-DC®) in 28 patients who were treated at our institution.
Patients: Data were available from 28 patients. Dendritic cells (LAEX-DC®) were produced according to a recently published protocol.
Results: Therapy was well tolerated and no serious side effects were observed. The median disease-free survival times and the median survival times were 16,9 months and 29,4 months respectively. Five-year DFS and OS were 14,3% and 17,9%.
Conclusion: We were able to show in a small cohort of patients that additional treatment with dendritic cells (LANEX-DC®) is highly effective and extends the median disease-free survival times as well as the median survival in the adjuvant treatment of pancreatic cancer, whereas the five-year overall survival still remains unsatisfactory.

Case Report **Published Date:- 2022-07-05**

Cardiac metastases from merkel cell cancer: A case report and review of literature

A 61 - year-old physically fit and athletic man presented to his dermatologist with a 10 mm raised, dark lesion on the left side of his neck. A complete skin examination did not show any other abnormal areas of skin. Pathology was found consistent with Merkel cell cancer, and the patient was referred to surgery for a wide local excision and sentinel lymph node biopsy. A PET scan did not show any other areas of concern. At surgery, one of two sentinel lymph nodes was found to be involved with Merkel cell cancer and the patient received postoperative radiation.

Case Report **Published Date:- 2022-05-26**

Pituitary gland metastasis from breast cancer: case report

Cancer metastasis to the pituitary gland is rare, but in most cases, it originates from a late-stage breast tumor or lung cancer. The most common symptoms of metastasis to the pituitary gland are diabetes insipidus and visual disturbance. The common site of metastasis is the posterior portion of the pituitary gland because it is highly vascularized. Metastases to this site represent 1% of all tumors [1]. Metastasis to the pituitary gland is difficult to diagnose by hormonal analysis and magnetic resonance imaging of the brain and requires biopsy for confirmation [2].
