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Medical Science

About the Cover

The health benefits of probiotic organisms are well documented. A large number of pharmaceutical formulations containing probiotic microorganisms are available worldwide. These formulations are generally composed of organisms specifically from the genera Lactobacillus and Bifidobacterium. To comply with the regulatory need for pharmaceutical preparations, the label claims of these types of microorganisms have to be maintained throughout the shelf life of the product. So the quality control specifications demand the development of different selective media for the enumeration of each type of microorganisms present in the formulations. The selective media for Lactobacillus acidophilus using ofloxacin (MRS) and Bifidobacterium animalis using mupirocin (MRS) were already reported. In this study the efficiency of MRS-Ofloxacin and MRS-Mupirocin media were evaluated for selective enumeration of Lactobacillus acidophilus ATCC 4356 and Bifidobacterium animalis ATCC 25527 respectively from their mixed population. Performance of the selective media was also statistically validated (Ref: Saha PK, Chowdhury S, Bhattacharjee D, Das S, Mukherjee S, Hazra A, Bhattacharyya BK. Evaluation of Selective Media for Enumeration of Lactobacillus acidophilus and Bifidobacterium animalis Present in Probiotic Formulations. Medical Science, 2016, 20(79), 104-109)

PERSPECTIVE

NMO-An Update

Saumya H Mittal, Salony Mittal, Tuhina Govil

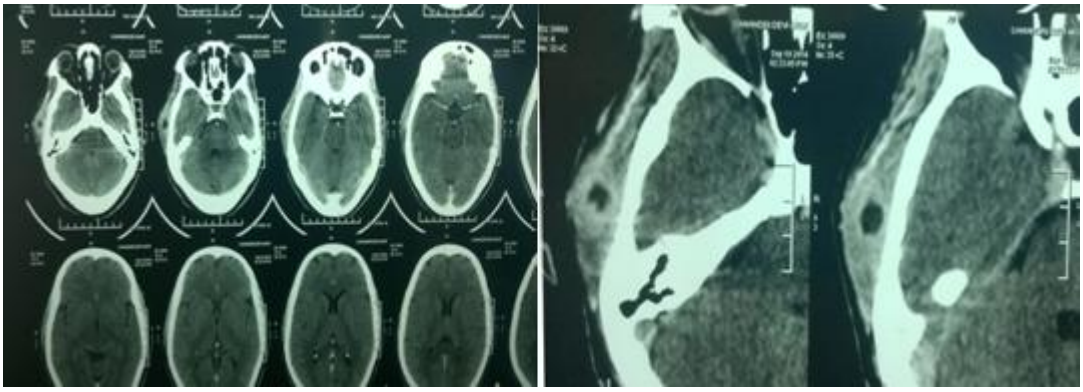
Neuromyelitis Optica is an autoimmune condition whose diagnostic criteria are expanding. The clinical features of the disease are different from multiple sclerosis, a disease that was considered a larger entity that included neuromyelitis optica until the last decade. The diagnostic markers are ever expanding and so are the treatment options, many of which are under trial.

Medical Science, 2016, 20(79), 69-73

CASE STUDY

A rare case of scalp space occupying lesion caused by cysticercosis without involvement of brain

Upadhyay PK, Gupta U, Singh R, Pandey S, MishraY, Pandey P



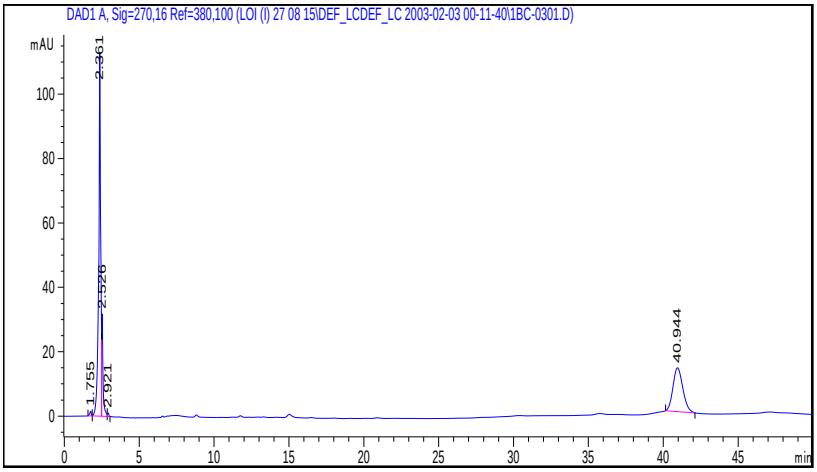
Scalp occupying lesion was being evaluated for infectious or tumorous lesion in middle age female which was removed under magnification and confirmed on histopathology as a lesion of cysticercosis.It is a rare presentationof scalp space occupying lesion of cysticercosis without brain involvement.

Medical Science, 2016, 20(79), 74-79

ANALYSIS

Comparative Evaluation of Anti-Inflammatory & Anti-Tumorigenic efficacy of "The Walking Mango Tree" Bark extracts

Gautama Reddy KV, Sunil Kumar Manna, Meher Master Moos, Ravi Prakash N



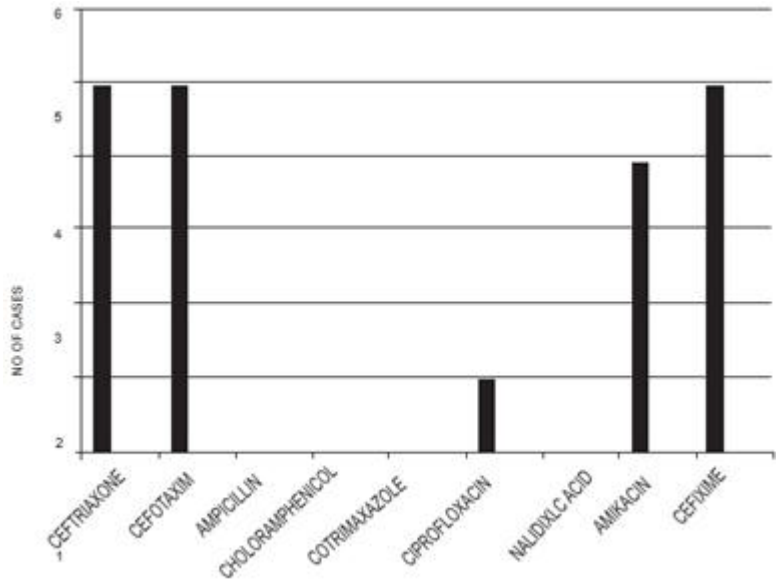
Stem bark of mango tree (Mangifera indica) has been used in herbal medicine as anti-phlogistic, liver protective, kidney protective, hypotensive, diuretic, anti-cough and analgesic agent. However, the anti-cancer activity and the potential anti-cancer mechanisms of walking mango tree bark have not been elucidated. We performed in vitro study to investigate whether WMTBE shows anti-inflammatory and anti-cancer activity. This was compared with the NMTBE. In anti-inflammatory activity proteins regulating NF-κB

signaling were analyzed by Western blot. In anti-cancer activity, cell growth was measured by MTT assay. HPLC, MALDI- TOF & GC MS were carried out to reveal the molecule beyond this phenomenon. These findings suggest that WMTBE exerts anti-cancer activity, but more trials have to be carried on anti-inflammatory activity.

Medical Science, 2016, 20(79), 80-90

The study of incidence of multidrug resistant typhoid fever in children 1-12 years with special reference to in-vitro antibiotic sensitivity and resistance pattern

Dhale S, Waghela S, Phalke B, Sadhwani N

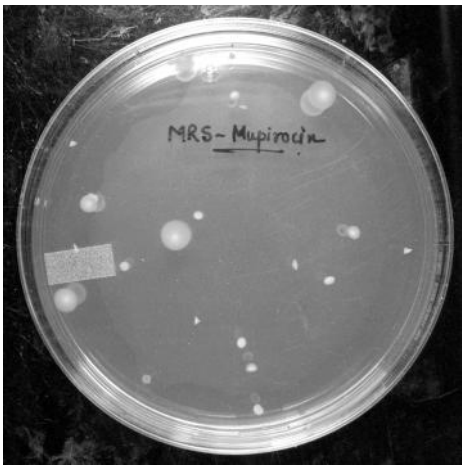


Enteric Fever commonly called as Typhoid Fever is caused by Salmonella enteric serovar typhi (S.typhi) a gram negative bacterium [1]. Typhoid Fever is a distinctive acute multisystem febrile disease recognised as a major cause of morbidity and mortality. MDR enteric fever is defined as typhoid fever caused by S. typhi strains which are resistant to all first line drugs i.e; Chloramphenicol, Ampicillin and Cotrimoxazole [2]. All children between age group 1-12 years, which were blood culture positive for enteric fever were taken. It was observed that an isolated cases of Typhoid Fever, sensitivity to third generation cephalosporins i.; Ceftriaxone, Cefotaxim and Cefixime was found to be 100% followed by sensitivity to Amikacin 92.5% which was second highest and ciprofloxacin was 20%, while sensitivity to first line antibiotic was Ampicillin 77.5%, Cotrimoxazole 77.5% and Chloramphenicol 80%, while MDRTF resistance to Ciprofloxacin was 80% and Amikacin was 20% and no resistance was found for third generation cephalosporins. Hence, it can be concluded that third generation cephalosporin shows 100% sensitivity to S.typhi and can be used as first line of antibiotic for treatment of MDRTF.

Medical Science, 2016, 20(79), 91-103

Evaluation of Selective Media for Enumeration of *Lactobacillus acidophilus* and *Bifidobacterium animalis* Present in Probiotic Formulations

Saha PK, Chowdhury S, Bhattacharjee D, Das S, Mukherjee S, Hazra A, Bhattacharyya BK



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Medical Science, 2016, 20(79), 104-109

LETTER

History taking in HIV infected - need to be changed

Deivam S, Prabhusaran N, Balasubramanian N

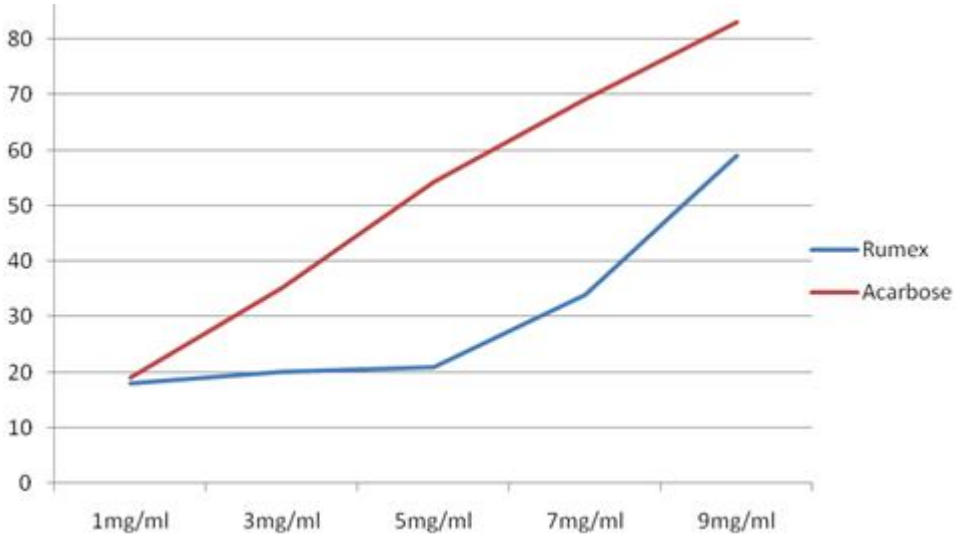
The epidemic of human immunodeficiency virus/ acquired immunodeficiency syndrome (HIV/AIDS) is in its third decade and has reached to alarming proportions worldwide (Kanekar, 2011). According to the Centers for Disease Control and Prevention, more than one million people are living with HIV (Ul Hassan and Rasool, 2013). There is still much that needs to be done to foster HIV prevention in primary care. Doctor's way of history taking raises questions as to whether society can count on primary care physicians to assume their part of responsibility in controlling the AIDS epidemic. Developing a system to identify persons most in need of HIV prevention services is a key step in implementing the sort of prevention approach. Most of the HIV-related research is targeted towards high-risk groups such as prostitutes, gays and substance abusers but there is evidence that it is increasing in college students and adolescents as well (Kanekar, 2011).

Medical Science, 2016, 20(79), 110-111

RESEARCH

Evaluation of *Invitro* Antidiabetic Activity and *Invivo* Oral Glucose Tolerance Test of *Rumex vesicarius*

Nadiminti Satish Reddy, Vidyasabbani, Pravanthi B, Vishwanath Reddy P, Vijaya B, Ch.Venu



Rumex vesicarius is one of the famous medicinal plants used in the treatment of a large number of human ailments as mentioned in Ayurveda. The main objective of this work is to evaluate the *invitro* antidiabetic activity and *invivo* Oral Glucose Tolerance Test effects of ethanolic extract of *Rumex vesicarius*. Different concentrations of *Rumex vesicarius* extracts were evaluated for alpha glucosidase and glucose uptake in yeast cells inhibition activity. Percentage of alpha glucosidase and glucose uptake in yeast cells inhibitory activity was calculated. In this study ethanolic extraction showed siginificant inhibition activity at the concentration of 400 µg/ml. In this study we conclude that the crude ethanolic extract of *Rumex vesicarius* is potential source of natural antidiabetic agent.

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