
Therapeutic potential of some Medicinal plants on wound healing.

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Abstract

The present study deals with the study of the medicinal plants used by the old aged common people of the rural villagers of Purba Medinipur district, West Bengal, India. The paper provide a brief account of four medicinal plant species, their extracts have immense potential for the treatment of wounds healing. Their natural agents induce healing and regeneration of host tissue by variable mechanisms. These plants extract exhibited also anti bacterial activity during wounds healing. This research aimed at promoting the conservation of these medicinal plants as well as wound healing purpose associated with them for cheap alternative healthcare resource.

Key words: *Aloe vera*, *Azadirachta indica*, *Tridax procumbence*, Wound healing.

Introduction:

Wound healing is an intricate process in which the skin or another organ tissue repairs itself after injury. The process of wound healing consists of integrated cellular and biochemical events leading to re-establishment of structural and functional integrity with regain of straight of injured tissue. Medical treatment of wound includes

administration of drugs either locally (topic) or systematically (oral or parental) in an attempt to end wound repair (Savant and Shah 1998). The topical agent used include antibiotics and antiseptics (Chulani, 1996) and forced with the growing resistance of organism to antibiotics and other drugs, the search for alternatives is urgent

(Seidal and Taylor, 2004). These useful medicinal plants are cost effective, easily available in nature, health and eco-friendly which would may help the efficacy than commercial drugs.

Study site:

Our study areas is Nandigram, Bajkul and Tethibari villages of Purba Medinipur districts which is the most southern part of west Bengal, India. Its latitude and longitude is 22.2790 and 87.9225 respectively.

Methodology:

Field studies were conducted to collect periodically information using ethno botanical method and by the old aged common people of these villages during the period March, 2012 to February, 2013. Special attention was given to record those plants which are used for wound healing purpose. Cross examination was done to verify the use of particular species mostly by interrogating another old aged person.

Report for wound healing purpose:

Ghritkumari (*Aloe vera*):

It is use for minor wound healing and minor burns. The fresh plant contains 96% of water and rest is essential oil, amino acids, minerals,

vitamins enzymes, glycoprotein (Raina *et al*, 2008). They collect the semi liquid materials from its leaves and are coating on the affected areas for three consecutive days.

Ban Tulsi (*Croton bonplandianum*)

Crotons are popular foliage plants and are often called Bantulsi (Churchuri). They collect juice of plants stem and spread over the very currently occurring wound areas. Blood clotted within 2 minutes and after washing with water in these areas, they spread the juice again over the infected areas for 2-3 consecutive days. Similar significance result was noticed by Divya *et al.*, 2011.

Tridhara (*Tridax procumbence*):

It is best known as a widely spread pest plants. It is used for several potential therapeutics activities like antiviral, antioxidants, antibiotics, efficacies, wound healing activity, insecticidal and anti inflammatory activity (Suseela *et al.*, 2002). Some old aged peoples of these areas used leave extracts on wounds for healing purpose. The result was very significant.

Neem (*Azadirachta indica*):

Neem oil is collected from ripe fruits of Neem plants mixed with its leaves,

Gol morich (2-3 gm in 100 ml oil), labanga (2-3 pcs), baro alachi (2-3 pcs) and grinding for a long time. The mixed crude oil was then keeps the site moist and gives soft texture to the skin during the healing process. This keeps any wounds or lesson free from secondary infections by microorganism. These mixture may be store for a long times if a pinch of alum is mixed with it.

Discussion:

The medicinal plants which are used to treat the wounds give satisfactory results because they contain all the ingredients/factors require for the proper healing of the wounds and the regeneration of the new tissue. The process of wounds healing can be classified into five phases, cellular phase (collagenation), narrowing wounds area (wounds contraction), collagen deposition (collogenation), epithelial covering (epithelisation), scar remodeling (cicatrixisation) (Divya, *et al.*, 2011). The role of these herbal plants extract may have an importance influence on metabolic process and can be reflected in healing. The wound is not infected by microbial agent and vascular part of the body heal quickly due to well

supplied blood after using of those extract of herbal plants. The undifferentiated mesenchymal cells of the wound margin modulate themselves into the wound gap along with the fibrin stands. The collagen is the major component of extra cellular tissue, which give support on and straight and is composed of amino acids (hydroxyproline), (Divya *et al.*, 2011). So, the plants have to be screened for their active principles and tested into the laboratory and then maximum benefit can be derived from them in the future.

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