

Uses of some Medicinal plants For Wound Healing In Aurangabad District M.S.(India)

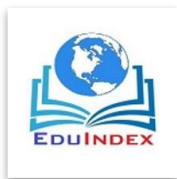
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Abstract :- A wound is a type injury which happens relatively quickly in which skin is torn,cut,orpuncturrd or where blunt force trauma causes a contusion. In pathology,it specifically refers to a sharp injury which damages the epidermis of the skin.Wound healing process is known as interdependent.Cellular and biochemical stages which are in trying to improve wound.The present ethno-botanical explorations conducted in forest areas of Ajanta region resulted in the information about traditional plants uses of 29 plant species belonging to 24 Angiospermicfamilies.The information collected from the tribal such as Mahadeokoli, TadviBhill, Laban and other village people from Ajanta region possess good knowledge of herbal drugs for treating of wounds. There is increasing interest to use the medicinal plants in wound healing because of lower side effects and management of wound over the years. Studies have shown that medicinal plants improve wound healing in diabetic,infected and opened wounds.

Keywords :-Injury, wound healing, Traditionalplants,Tadvibhill,Ajantha region.

Introduction:- A wound is a type of injury which happens relatively quickly in which skin is form,cut, or punctured (an open wound) or where blunt force trauma causes a contusion (a closed wound). In pathology, it specifically refers a sharp injury which damages the epidermis of the skin.Anopen wound is an injury involving an external or internal break in body tissue, usually involving the skin. Nearly everyone will experience an open wound at some point in their life.Most open wound are minor and can be treated at home.Falls, accidents with sharp objects,and car accidents are the most Common causes of open wounds. Closed wound have damage that occurs without exposing the underlying body tissue in a closed wound,the skin's surface is not broken; there fore, tissue damage and any bleeding occur below the surface.The simplest closed wound is a bruise.

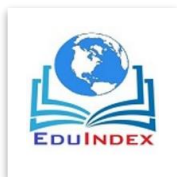


Wound healing is defined as a collection of complex process which comprises different compounds including soluble mediators, blood cells, extra cellular matrix, and parenchyme cells. Wound healing is divided into stages including inflammation process, tissue formation and tissue remodeling. The inflammatory phase involves different stages such as platelet accumulation, Coagulation, leukocyte migration. Re-epithelialization, angiogenesis, fibroplasia and wound contraction are stages for tissue formation. Remodeling phase may be lasted for 1 month, and the dermis may respond to injury with production of collagen and matrix proteins and then returns to its pre injury phenotype (Kumaret. al., 2007)

The Ajanta region with its dry deciduous type restricted to satmala ranges. About 148sq.km area is covered by dense forest. 75 to 90 % rural population of India still depends on herbal medicines for the primary health care. (Mshana et al., 2001) In this region the local people have their own way of treating wound with plant medicine. The Communities, thus maintain a traditional health care system based on surrounding local natural resources. It has been transmitted from generation to generation. The increase in demand for the use of plant medicines in to treat wound due to their effectiveness and availability in local area.

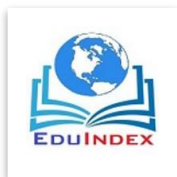
Methodology :- The present Ethno botanical survey was conducted during 2015-2016 particularly in rainy and winter season in different villages of Ajanta region such as Ajanta, Lenapur, Sawarkheda Halda, Dakla & Pimpaldari. The ethno botanical data (local name, mode of preparation and medicinal uses) were collected through interviews and discussion with the tribal practitioners such as Tadvibhill, Mahadevkoli, lamanbanjara and Bhagat. Information were collected through interviews with five person aged between 40 to 72 who had the traditional knowledge of plants. For In addition to the vernacular names questions were also asked about each plant prescribed, such as part of the plant used, medicinal uses, information about mode of preparation for the wound healing. The medicinal plants were identified (local name), photographed and sample species were collected for the preparation of the herbarium.

Plants collected during this work identified with the help of different flora. Flora of Marathwadaval I and II (Naik V.N; 1998) and the flora of the Presidency of Bombay Vol I to III (Cooke T. 1967). The information provided by the respondents is also kept in the Siddharth college Jafrabad, Dist. Jalna

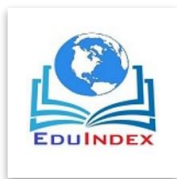


Observation and Results

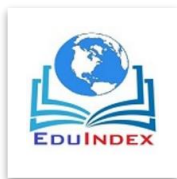
Sr.No	Botanical Name and Family	Common Name (Hindi,Marathi)	Parts used,mode of preparation and some other plants used as ingredients
1	Acacia catechu L. Fabaceae	Khair, Kattha	Bark powder externally applied on wound.
2	<i>Achyranthesaspera</i> L. Amaranthaceae	Apamarga, Aghada	Latex of leaf or sten applied externally on Wound.
3	<i>Allium cepa</i> L. Liliaceae	Pyaj, Kanda	Paste of onion+Honey (01 teaspoon+ bulk half teaspoon honey) externally applied on the skin
4	<i>Allium sativum</i> L. Liliaceae	Lasan, Lasun	Few cloves of A.sativum crushed and externally applied on wound
5	<i>Aloe barbadensis</i> (Mill) Liliaceae	Gawarpatta, Korphad	Juice or pulp of Aloevera is applied externally to cure wounds
6	<i>Annonasqaumosa</i> L. Annonaceae	Sitaphal	Leaf paste of A. sqaumosa applied externally on wound.
7	<i>Anthocephaluscadamba</i> (Roxb) Rubiaceae	kadamb	Bark paste applied externally on wound.
8	<i>Argemone Mexicana</i> L. Papaveraceae	Satyanashi, Piwaladhotra	Clean leaf of A.mexicana and make a paste of leaf applied externally on wound for 3 to 4 days.
9	<i>Argyreia nervosa</i> (Burm) Convolvulaceae	Vidhara	Leaf juice externally applied on the wound and leaf of A. nervosa bind around the wound until the wound cure.
10	<i>Azadirachtaindica</i> (A.Juss) Meliaceae	Neem	One tea spoon juice of A.indica + half tea spoon



			turmeric powder applied externally on wound.
11	<i>Bryophyllumcalycium(Lam)</i>	Parnabeej, Panphuti	Juice opf the leaf applied topically to heal wound
12	<i>Calotropisgigantea(L.)R-Br.</i> Asclepiadaceae	Ruee(Shwetarka), Aak	Extract of leaf (C. gigantea+Lemon juice applied externally on canker for 3 to 4 days.
13	<i>Carica papaya L.</i> Caricaceae	Papaya,Papai	Dried powder of fruit latex or Leaves of papaya applied externally on wound due to that reduction in wound area.
14	<i>Celastruspaniculata(Willd)</i> Celastraceae	Jyotishmati, Malkangni	The cloth is soaked in to the seed oil of C.paniculata and that cloth externally applied on the wound.
15	<i>Coccusnucifera L.</i> Arecaceae	Nariyal,Naral	Coconut oil externally applied on in infected area and cover it with clean cloth.Re-apply the oil at least 2 to 3 times in a day.
16	<i>Curcuma longa L.</i> Zingiberaceae	Haldi, Halad	Dried powder of rhizome externally applied on bleeding wound.During night a glass of turmeric milk it's effective in wound treatment.Also two cloves+half tea spoon calcium hydroxide+one tea spoon turmeric powder applied externally in canker.
17	<i>Diospyrosmelanoxylon(Roxb)</i> Ebenaceae	Tendu,Tembhru	Leaf and bark boiled when that make half mixed with ghee applied on burn wound externally.
18	<i>Ficusbenghalensis L.</i>	Bargad, Wad	Leaf powder is applied



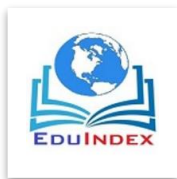
	Moraceae		topically to treat wound;The latex of leaf applied externally on deep wound.For stiteches type of wound leaf of F. benghalensis heated and tighten around the wound.In Fistula or canker latex of leaf+slough of snake mixed and soaked in cotton applied externally on wound untillthe wound cure.
19	<i>Ficus religiosa L.</i> Moraceae	Pipal,Pimpal	Aqueous extract of bark applied on the wound.
20	<i>Lantana camara L.</i> Verbenaceae	Raimuniya, Ghaneri	Fresh juice of leaves have favoured wound contraction.
21	<i>Moringaoleifera (Lam)</i> Moringaceae	Munga,Shewga	Aqueous extract of leaf applied of wound increase in wound closure rate.
22	<i>Psidiumguajava L.</i> Myrtaceae	Amrud, Peru	Ripened Guava fruit +one tea spoon ghee should be taken orally in surgical wound.
23	<i>Musa acuminata L.</i> Musaceae	Kela	The wound due to glasses. The paste of aqueous leaf extract applied externally.
24	<i>Ricinuscommunis L.</i> Euphorbiaceae	Arandi, Erand	Castor oil applied externally on wound.
25	<i>Seasasumindicum L.</i> Pedaliaceae	Til	S.Indicum seed oil applied externally or eating of seed orally possesses wound healing activity.
26	<i>Tageteserecta L.</i> Asteraceae	Genda, Jhendu	Fresh cow urine+Turmericpowder+two flowers of T.erecta mixed



			and make a paste applied two times in a day for gangrene (osteophylatis)wound untillthe wound cure.
27	<i>Terminaliaarjuna(Roxb)</i> Combretaceae	Arjun,ArjunSadada	Bark powder applied externally on any type of wound.
28	<i>Terminaliachebula(Retz)</i>	Hirda, Harad	Hirda powder applied externally on wound. For internal wound powder should be taken orally.
29	<i>Tridexprocumbens L.</i> Asteraceae	Tridhari, Ekdandi	Aqueous leaf poured in to wound.it's stop bleeding.

Dicussion and Conclusion in this Aurangabad district Ajanta region have rich heritage of ethnic as well as floristic diversity having great medicinal importance. The tribal population and the people of other ethnic communities use many plants for medicine, food, fodder, oil seed etc these local people are depending on primary health care treatment. This treatment is given by the older person from their community and they believe on his practice. For the wound treatment 29 plant species from 24 families have been used as indicated in table. The members of the family Liliaceae had the highest number of three plant species followed by Moraceae, Asteraceae and Combretaceae with two species each for the wound treatment. *Ficus benghalensis* was one of the plant that used in deep wound, stitches type of wound and in fistula or canker type of wound by using their leaf latex and whole leaf bind around the wound until the wound cure this type of home remedies play vital role in rural area due to their use fullness and are without side effect in local health care system. Now the interference of grazing animal, expansion of agricultural practices deforestation has been increased in restricted area. Due to that depletion in some area.

Traditional medicinal system is widely distributed in India. It is evident that any system of the health care solely will not be capable to cope-up with the health care demands of public. Therefore traditional and cultural medicinal knowledge has a catalyzing effect in meeting health care demands. In this study various plants and their parts have been used for wound

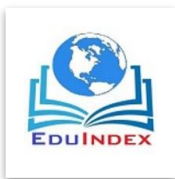


healing. This validates the belief of people in the efficacy this botanicals in treatment of wound. How ever leaves form the greater part used (41.37%) stem or bark (31.03%) seed or fruit (24.13%) and flowers (3.4%). This conformed to the work of Raina et al. (2008), they reported that the leaves were most frequently used plant part local in habitants. This could be because leaves contain reasonable amount of secondary metabolites this have the potentials of wound healing. The different methods of preparation and administration of the plants used to treat wounds. The plants were found to be used to singly, although there were situations where two different parts of plant species are used together. According to the respondents most of plants are externally applied on the wounds daily as long as the injury goes away depending on it's severity.

The combination of traditional and model knowledge can produce better drugs for wound healing. Such type of traditional knowledge on plant can form a basis for clinical, medicinal, pharmacological and novel drug delivery system for wound healing products.

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