INTRODUCTION

The use of Aloe Vera has been documented since historic and probably pre-historic times, being probably a native of the Maghreb, a term used for Africa by the Arabs. The plant is now widespread and also being cultivated extensively. Previously and in present times this plant has provided relief to various ailments, in minor burns to combat infection, from cuts to cosmetics uses. The methodology mentioned in historical texts is simple, but speaks of repeated applications of the crushed whole leaf or the scooped inner leaf gel, applied topically and also used by ingestion to induce diarrhea. Its use as a drastic purgative is also mentioned as is its use to induce abortions. Ratee et al in 2007 have reported that undoubtedly it decreases the cardinal signs of inflammation. However mechanisms are yet to be worked out.

In modern times, it is used as a health supplement to enhance digestive activity, and immune system. However claims have been made of its positive actions in liver, kidney and gall bladder but without much credible proof. Baby et al in 2010 and Nirmal et al in 2008 also mentioned that mannoses boost the immune system through their action on T cells. The present study was carried out to determine whether Aloe Vera inner leaf gel promotes wound healing in primary intention as compared to control wounds.

METHODOLOGY

The current study was conducted on 18 adult wild rabbits in the departments of Physiology, Pathology and Postgraduate Research Lab of ISRA University Hyderabad, from June 2011 to December 2011. The inclusion criteria was, adult male wild type rabbits having weight between 1250 grams and 1500 grams. Those rabbits which were sick, not feeding properly and moribund rabbits were excluded from the study.

Preparation of Aloe Vera extract & mixture: Aloe Vera leaves were collected from nearby plant nursery, these was washed three times with Luke warm water a mild detergent. The outer thick rind of the succulent leaf was peeled off with a sharp knife to reveal the transparent gel inside. The later was scooped out, and transferred to a high speed blender. After blending the gel for 01 minute, it was filtered through three layers of the finest cotton cloth to remove any leftover parenchyma; the extract thus obtained was stored in sealed air tight jars. The mixture was prepared by adding Aloe Vera extract and Xylo Aid (v/v).

Experimental Procedure: Keeping all aseptic measures, the hairs were removed from rabbits back with the help of electric trimmer followed by hand razor shaving of the skin. 20 millimeter long cuts were given after application of intra dermal local anesthetic; and marked with the help of permanent markers. The rabbits were divided into three groups each comprising 06 numbers and marked as group A, B & C.

Group A was control group and treated with Xylo Aid and marked blue.

Group B was treated with a mixture of Xylo Aid & Alo Vera extract and marked black color.

Group C was treated with Alo Vera extract and marked green color.

The wound in each case was not covered by any dressing material and left open to air. The applications were repeated daily till the end of experimental phase. Taking the operation day as zero, 3 rabbits were sacrificed after 24 hours and then alternatively till the 11th post-operative day. The entire wound area along with 4-5 mm of the surrounding skin was removed by excision and placed within already marked containers, in 10% formaldehyde as preservative/ fixative for H&E staining.
protocols and histology. The manual procedure was adopted to process the formaldehyde fixed tissue. The slides thus obtained were visualized under microscope and fibroblasts were counted using a reticle as suggested by Hamid ZS & Din MS in 2008, to see the quality of wound healing and results were tabulated.

**Statistical Analysis:** The result were analyzed using statistical package 16. The test applied was Student’s paired sample t test and, the p-value of <0.05 was considered to be significant.

**RESULTS**

Result shows after 24 hours of post wounding the fibroblast count is greater in the wound in which we applied pure aloe gel extract as compare to control and mixture, similarly after 264 hours of post wounding the fibroblast count is again exceed in the wound in which we applied pure Aloe gel extract as compare to control and mixture, & comparing the groups the results were found statistically significant (Table – I & II).

<table>
<thead>
<tr>
<th>Hours post wounding</th>
<th>Pure Aloe Gel Extract</th>
<th>Mixture</th>
<th>XyloAid®</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>1944</td>
<td>1754</td>
<td>1422</td>
</tr>
<tr>
<td>72</td>
<td>2587</td>
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<td>2897</td>
</tr>
<tr>
<td>264</td>
<td>4687</td>
<td>3871</td>
<td>3298</td>
</tr>
</tbody>
</table>

**CONCLUSION**

Aloe Vera extract application for eleven days on rabbit skin showed faster healing process in comparison to mixture or Xylo Aid alone. However it needs more research component wise to know the exact effect of Aloe Vera application orally or topically.

**REFERENCES**

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