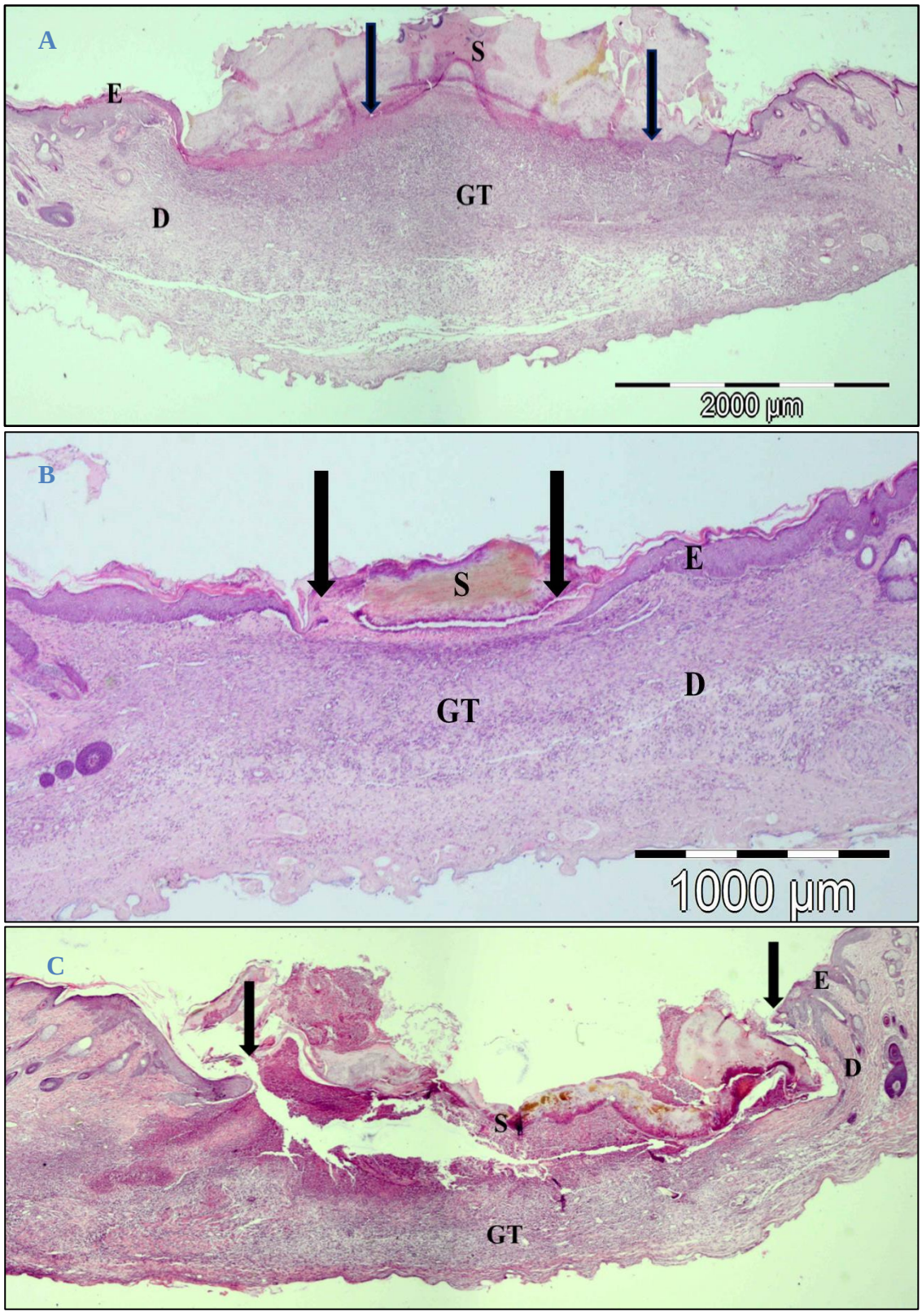
4.4.6.3 DAY 10 OF TREATMENTS



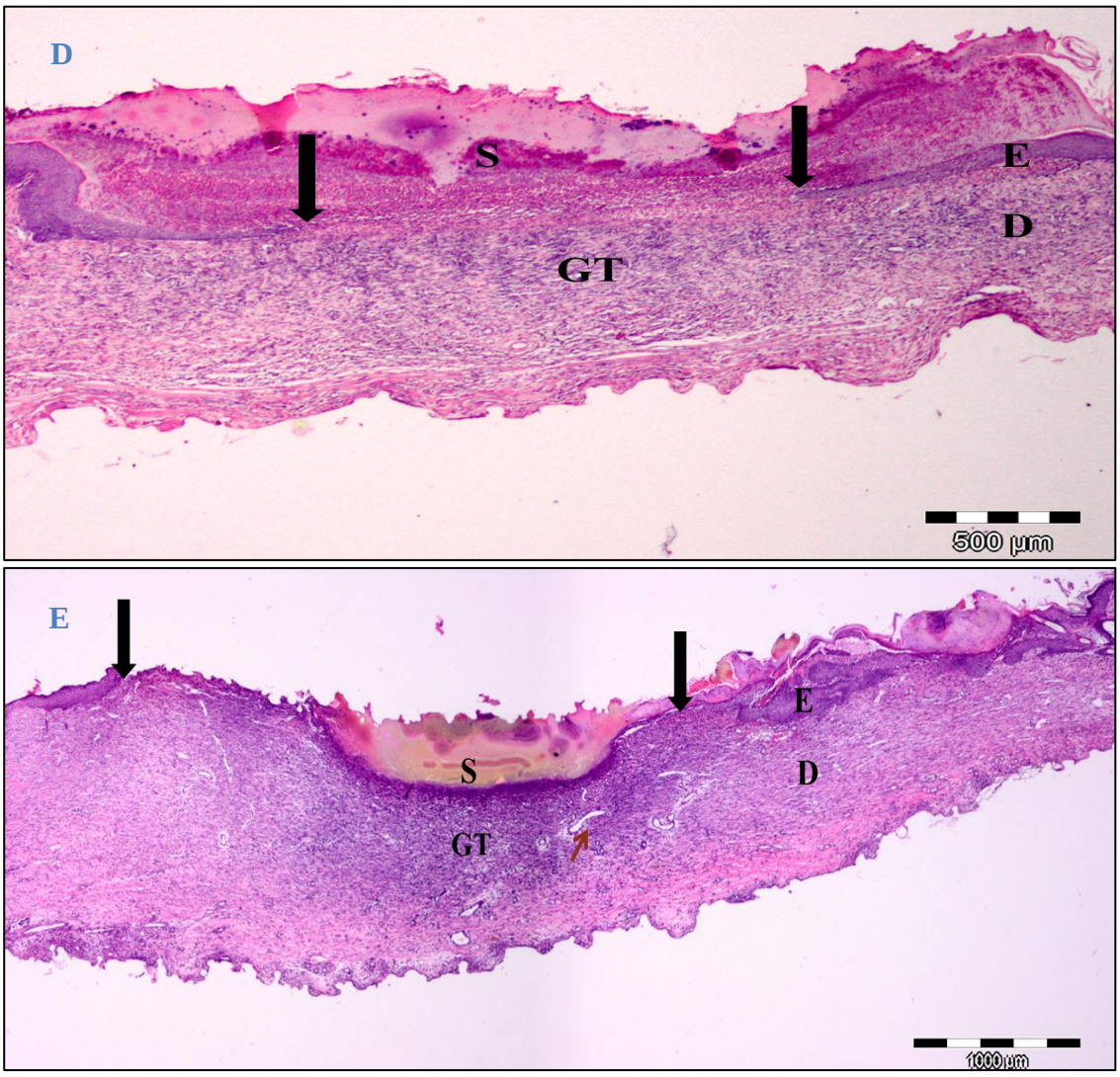


Figure 4.42: Histology of wound area according to group of treatments on Day 10 of Treatments. H&E stained sections. 20X Magnification. Black arrow showed the wound edge. (A) Group NO (No Dressing). (B) Group SA (Saline). (C) Group IN (Intrasite) (D) Group GE (Gelam). (E) Group NE (Nenas). D=Dermis; E=Epidermis; GT= Granulation Tissue; S=Scab.

Visualization the general results on Day 10 of treatments according to treatment groups could be seen and compared at the low magnification (e.g. 20X) in the H&E staining (Figure 4.42). Specific details and features will be discussed in the later part in this section.

Microphotographs (Figure 4.42) showed that wound edge in wound of treatment groups on Day 10 of treatments were growing closer compared to the earlier stage of

wound healing. Demarcation Line disappears indicated the migration of inflammatory cells decreased on Day 10 of treatments. Marked epithelialization was found in all treatment groups. Epithelial cells layers started to cover the entire surface of wounds. Scabs started to detached from the surface of the wounds in all the treatment groups. Granulation tissue formed in all the treatment groups. Overall results showed that process of epithelialization were still incomplete on the wounds of all the group of treatments. Angiogenesis were still presence on D10 of treatments in all treatments groups.

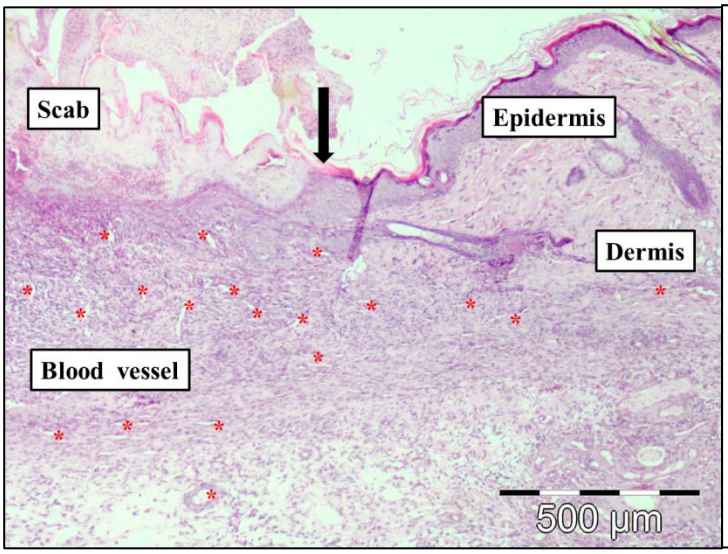


Figure 4.43: Histology of wound in Group NO (No dressing) on Day 10 of treatments. H&E stained sections. 40X Magnification. Black arrow showed the wound edge indicated the process of epithelialization started.

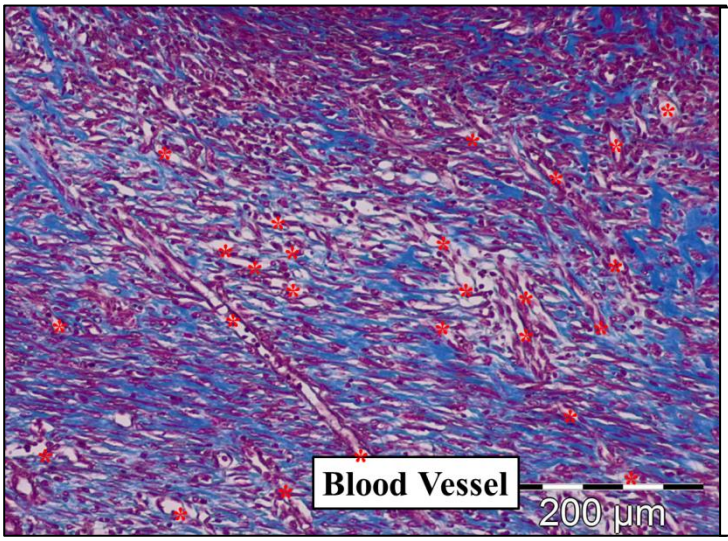


Figure 4.44: Blood vessels in the granulation tissue of Group NO (No dressing) on Day 10 of treatments. MT stained sections. 100X Magnification. Blood vessels (labeled with *) saturated on granulation tissue. Intensity of blue color increased indicated that collagen content increased.

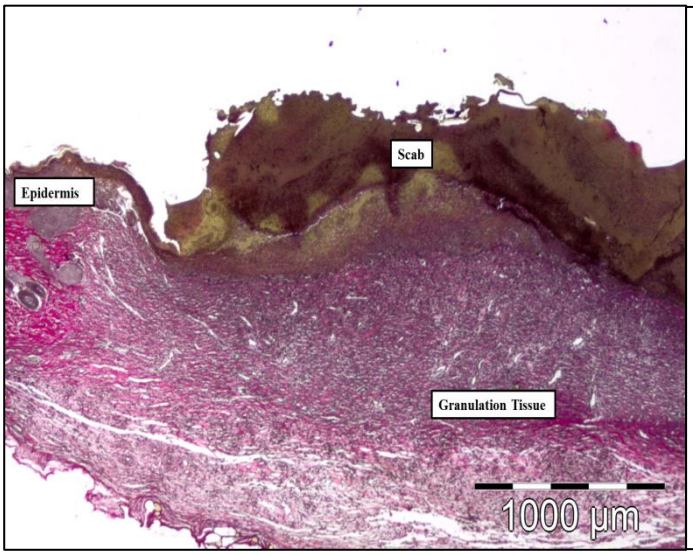


Figure 4.45: Histology of wound in Group NO (No dressing) on Day 10 of treatments. VE stained section. 20X Magnification. Blood vessels saturated in the granulation tissue. Thick scab still remaining on the surface of the wound area.

H&E stained slide (Figure 4.40A) for the Group NO (No dressing) on Day 10 of treatments showed that the number of inflammatory cells reduced. Scab formed on the surface of wounds was still attached. Wound area /granulation tissue were stained in purplish blue color in H& E stains. This area found to be smaller compared to the wound on Day 5 of treatment (Figure 4.18). Number of newly formed blood vessel increased and was found near to the area of wound edge. MT stained slides (Figure 4.44) showed that the collagen level in the granulation tissue increased especially at the bottom part of the wound area. Fibroblast was found abundant near the surface of the wound. Blood vessels in various sizes found saturated in the granulation tissue. Small blood vessels found near to the surface of the wound while the bigger size blood vessels found at the bottom part of wounds. VE stained (Figure 4.45) found showed the area of the granulation tissue were stained black in color indicated that the migration of cells still occurs in the wound healing process. No exudates present in this stage as the wound area was not stained in yellowish color. The photomicrographs clearly showed that blood vessels saturated in the area of the newly formed granulation tissue.

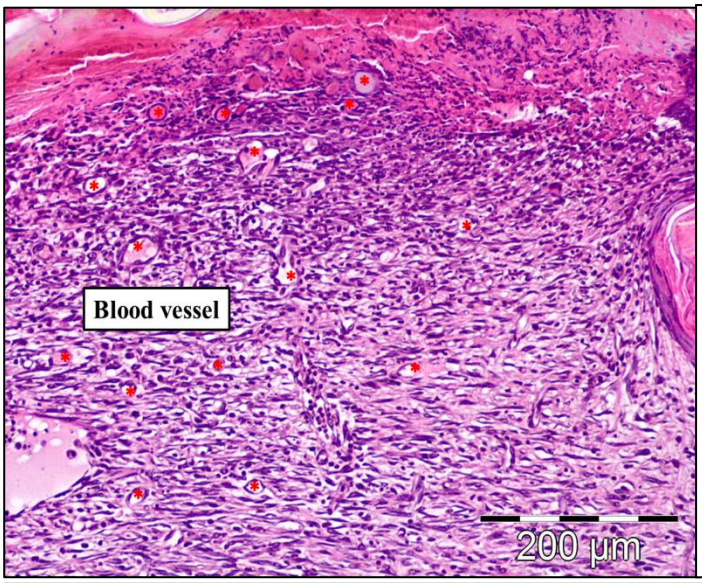


Figure 4.46: Angiogenesis in the granulation tissue of Group SA (Saline) on Day 10 of treatments. H&E stained slide. 100X Magnification. Blood vessels (labeled with *) saturated in the granulation tissue.

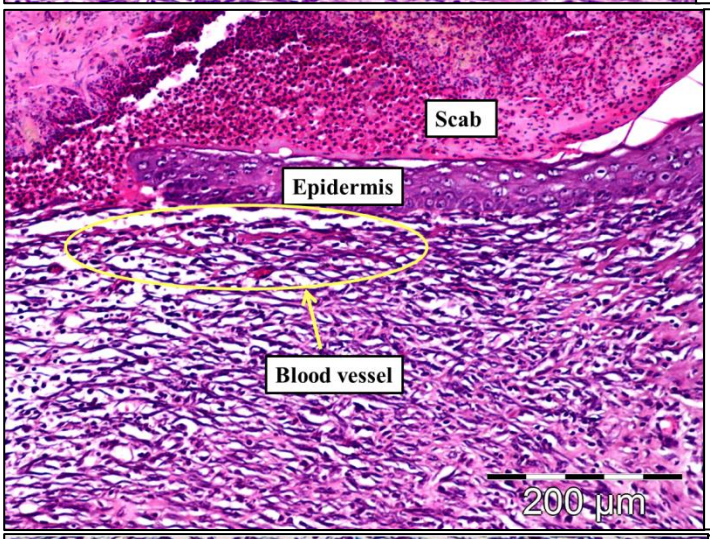


Figure 4.47: Wound edge on Group SA (Saline) on Day 10 of treatments. H&E stained slide. 100X Magnification. Small vessels abundant near the area of wound edges.

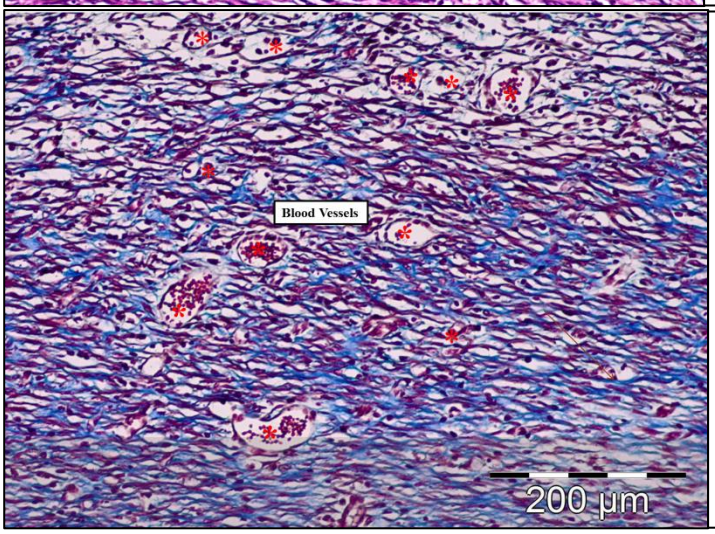


Figure 4.48: Granulation Tissue of Group SA (Saline) on Day 10 of treatments. MT stained slides. 100X Magnification. Blood vessels (labeled with *) saturated in granulation tissue. Some contains the blood cells. Fibroblast level is still abundant in granulation tissue. Collagen is stained in blue color.

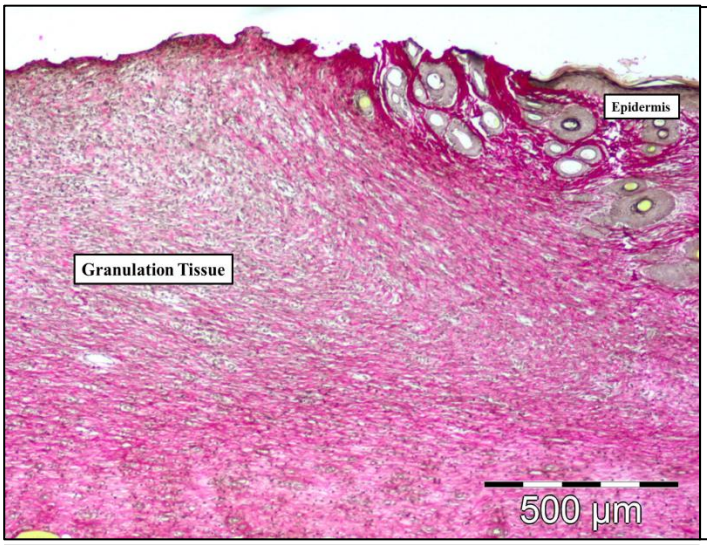


Figure 4.49: Histology of granulation tissue of Group SA (Saline) on Day 10 of treatments. VE stained sections. 40X Magnification. Blood vessels are clearly seen in the granulation tissue.

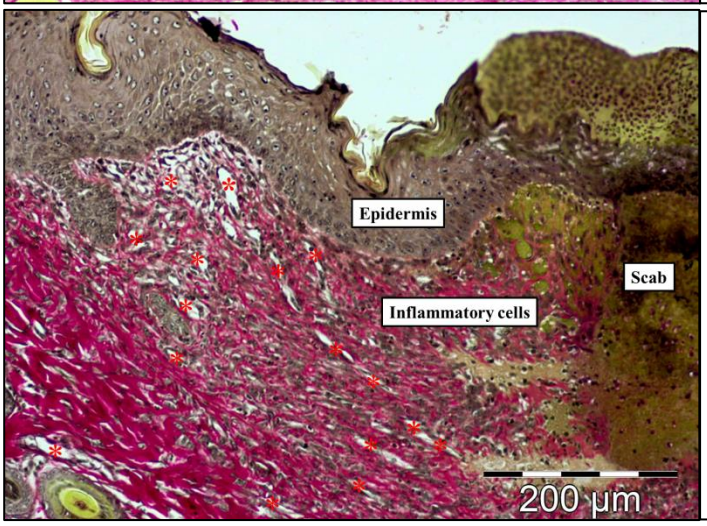


Figure 4.50: Epithelial cells layer at the wound edge of Group SA (Saline) on Day 10 of treatments. VE stained slide. 100X Magnification. Fibroblast level and newly formed blood vessels (labeled with *) near the surface of the wound.

H&E stained slides (Figure 4.47) showed that epithelialization still remained in complete on the wound of group SA (Saline) on 10 Days of treatments. Wound area started to reduce as the granulation tissue formed. Number of inflammatory cells saturated in the granulation tissue become lesser compared to the previous day of treatments. MT stained slide (Figure 4.48) showed the abundant of fibroblast found in this stage of healing near the surface of the wound. Dense collagen level was also found in this stage. Fibroblast and collagen fibers were loosely arranged in the granulation tissue. Scab form still attached on the surface of the wound. Blood vessels were clearly observed in the wound area. VE stained slide (Figure 4.47 and Figure 4.50) on the wound of Group SA (Saline) on Day 10 of treatments clearly showed that abundant blood vessels in various sizes found in the area of granulation tissue.

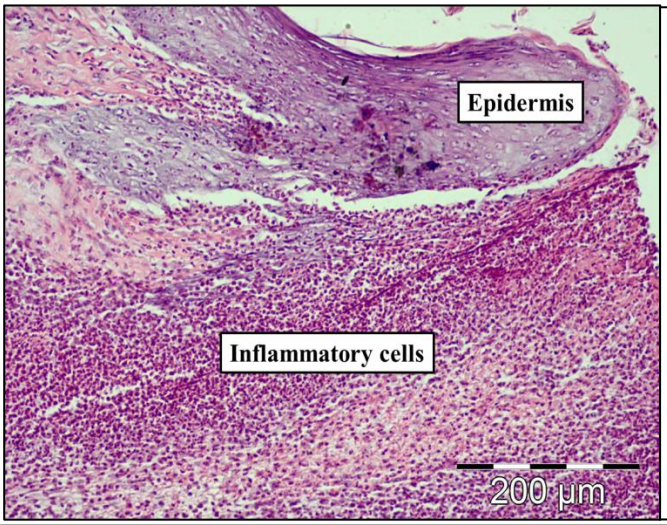


Figure 4.51: Cell migration and wound edge Group IN (Intreasite) on Day 10 of treatments. H&E stained section. 100X Magnification. Marked wound edge found on the wound. Inflammatory cells were found abundant near the surface of the wound.

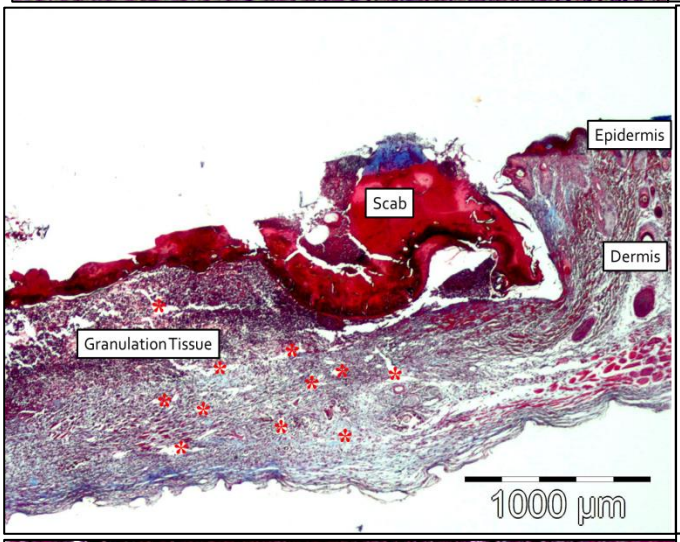


Figure 4.52: Histology of wound of Group IN (Intrasite) on day 10of treatments. MT stained slide. 20X magnification. Scab formed still thick and attached to the wound surface. Blood vessels (labeled with *) was saturated in the area of granulation tissue.

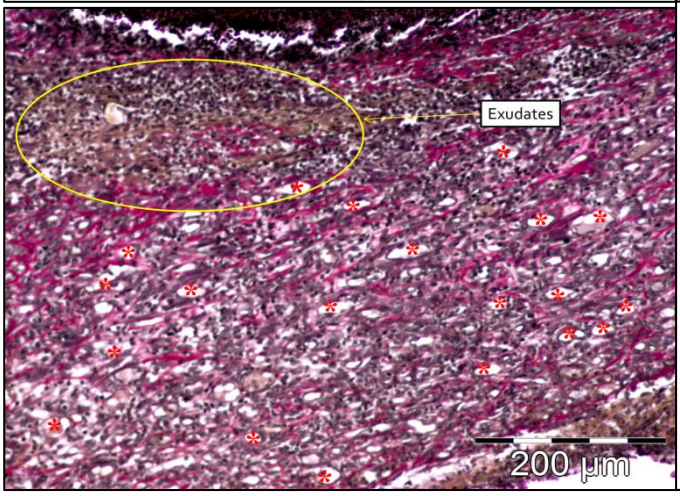


Figure 4.53: Granulation tissue of Group IN (Intrasite) on Day 10 of treatments. VE stained sections. 100X Magnification. The surface area of near the scab found to be stained in slightly yellowish colored indicated the presence of exudates. Blood vessels (labeled with *) were saturated in the granulation area.