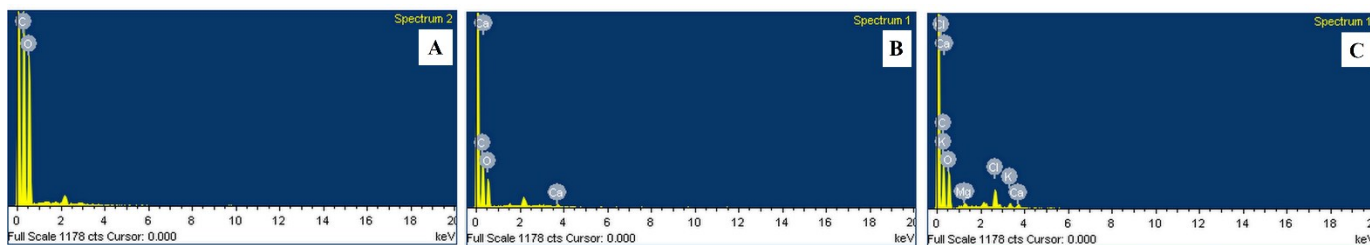
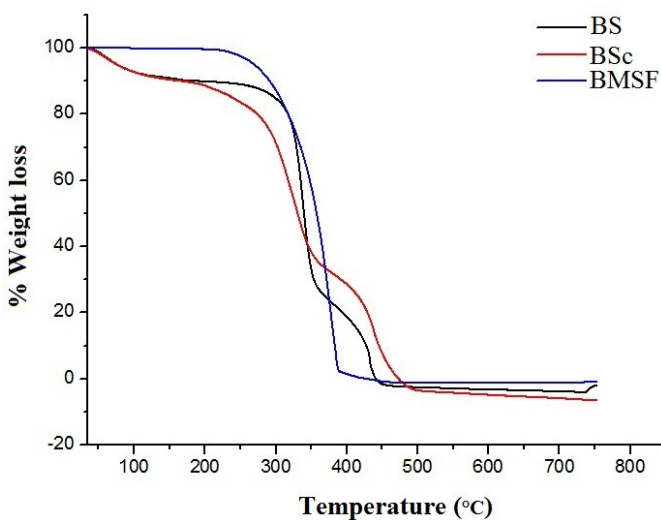


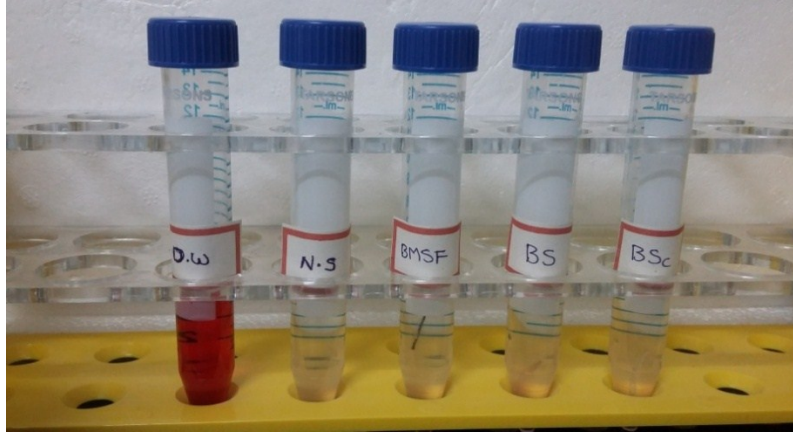
Supplementary material



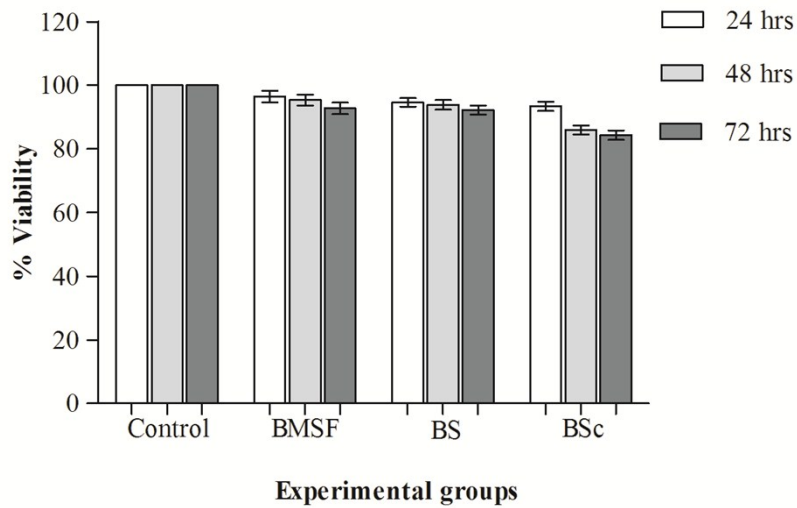
Supplementary Fig S1: Energy-dispersive X-ray spectroscopy (EDX) analysis of banana raw (A), degummed-non coated (B), and degummed coated (C) fiber for elemental analysis.



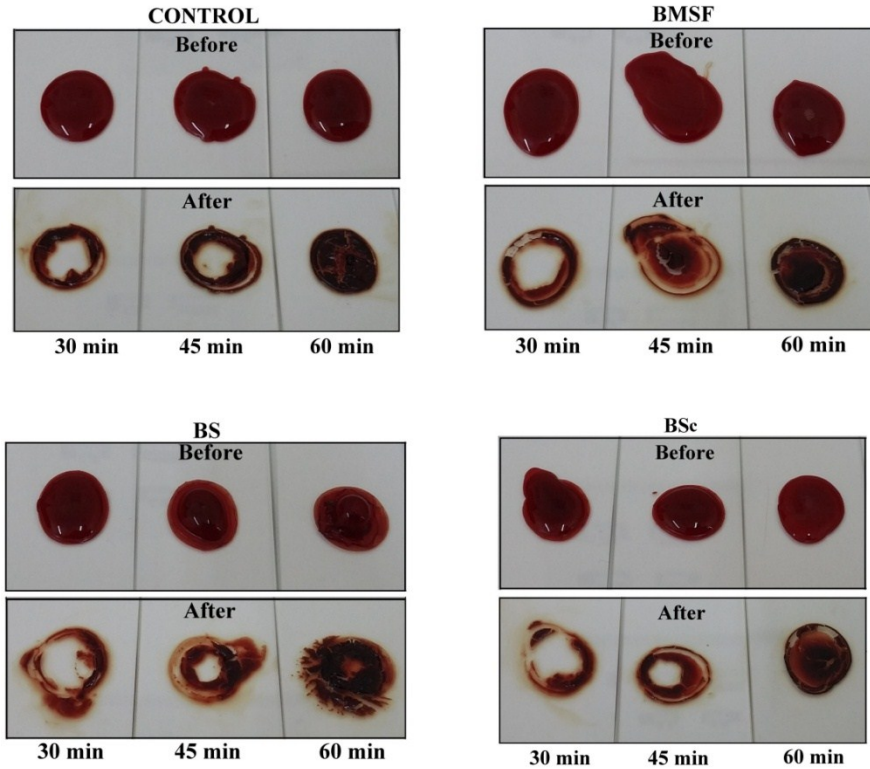
Supplementary Fig S2: TGA thermo gram of BMSF, non coated banana suture (BS), and coated banana suture (BSc).



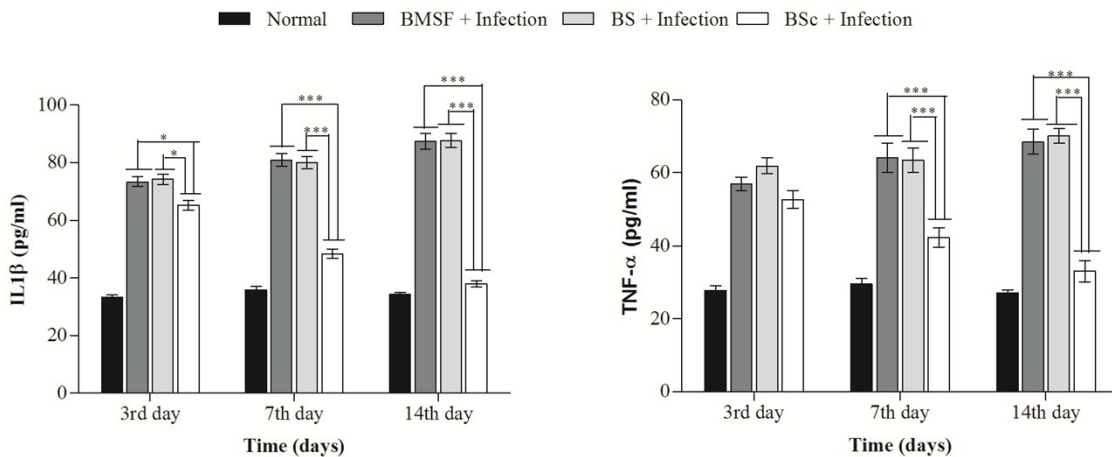
Supplementary Fig S3: Study of hemolytic potential of distilled water (DW), normal saline (NS), BMSF, non coated banana suture (BS), and coated banana suture (BSc).



Supplementary Fig S4: Graphical representation of MTT assay results for BMSF, non coated banana suture (BS), and coated banana suture (BSc) along with the positive control at 24 hrs, 48 hrs, and 72 hrs



Supplementary Fig S5: Images showing *in vitro* antithrombotic property evaluated for control, BMSF, non coated banana suture (BS), and coated banana suture (BSc) at blood clotting time of 30, 45 and 60 min (n=3)



Supplementary Fig S6: Effect of surgery on serum inflammatory cytokine levels IL-1 β and TNF- α on 3rd, 7th, and 14th day of surgery with BMSF, non coated banana suture (BS), and coated banana suture (BSc) in comparison to control animals. The values are expressed as mean \pm standard deviation (n=6). At 14th day of infection IL-1 β and TNF- α levels significantly decreased *** p < 0.001 in BSc sutured animal.