

**Enhancement of Fracture Healing
By A Newly Discovered Peptide
(SHMSP)**

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Summary:

Fifty skeletal mature three-month-old rabbits were studied for the effect of SHMSP (Sadat-Habdan Mesenchymal Stimulating Peptide) on fracture healing.

The animals were divided into 5 groups 4 study and 1 control groups (group A-E). Groups A-D were study group and group E was control. In all the groups, under anesthesia, a fracture was created in the right ulna. From day three the study groups received 5 mg/kg body weight of the peptide 1-4 in group A-D. Control group did not receive any peptide nor placebo.

Each week two rabbits of the study group and two of the control group were radiographed. Then sacrificed and the limbs were dissected and stored in formalin was sent for histopathology.

Results:

Radiographs of the animals indicated early union in the study groups as compared to the control groups. Histopathological studies showed that the peptide had stimulated more osteoid in the control group. In the control group the osteotomy sites had no osteoid and more cartilage from the first week onwards.

Conclusions:

The study indicates that SHMSP is a potential peptide which stimulates production of osteoid which is the requirement of every fracture healing. This peptide could prove to be one of the major breakthrough in the treatment of fractures and impaired healing of fractures, as this polypeptide is the smallest chain reported in the literature.