

Autologous bone marrow coated mesh in repair of incisional hernia: A Quasi-Experimental study

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Abstract

Introduction: Abdominal incisional hernia is one of the most common postoperative complications after laparotomy. Recurrent incisional hernia can be complicated by enterocutaneous fistula, bowel obstruction, surgical site infection etc. Given this recent studies we have concentrated on improving prosthetic biocompatibility such as coating mesh with the patient's own bone marrow cells to reduce mesh related complications and for strong repair.

Methods: Bone marrow harvested from sternum and stored in a sterile speciman with heparin. Separation of different components of incisional hernia done. Peritoneum is dissected from posterior rectus sheath 5cm beyond the neck of sac and around. Bone marrow is then coated over mesh in both sides. Then mesh is placed preperitoneal space and fixation done. Abdomen closed in later with a drain.

Discussion: bone marrow coated mesh may improve biocompatibility, by reducing inflammation and adhesion formation and improve the quality and strength of the regenerated tissue.

Conclusion: Bone marrow coated mesh repair is a better modality of treatment in decreasing morbidity as compared to conventional hernia mesh repair surgery.

Key word: autologous bone marrow, bone marrow coated mesh, prosthetic biocompatibility, incisional hernia.

Biography

Sribatsa Kumar Mahapatra is the pioneer of clinical application of adult mesenchymal stem cells research in India. He completed his MBBS (Hons) in 1977 from MKCG Medical College, Odisha, India, securing 1st position in University with Hons in SPM and Anatomy. He completed his MS (Surgery) in 1982, from PGI Chandigarh. He qualified Diplomat in National Board Surgery (1988), FIMSA (Surgery) 1992, FICS (Surgery) 1993, FAIS (Surgery) 1993, FRCS (Edin) General Surgery, 1995. He joined as a Lecturer in General Surgery at VSS Medical College, Burla in 1984 and then as Assistant Professor Since 1992 and served the community by giving comprehensive surgical care in Emergency, Elective & Laparoscopic Surgery and also with outstanding ability in teaching Clinical Surgery to Under Graduate & Post-Graduate students acclaimed by the students and authority, published research paper STETHOSCOPE SIGN in appendicitis in Surgical Journal of North India. He became Professor of General Surgery since 2007 and is engaged in teaching, treatment & research activities as relates to General Surgery to Under-Graduate, Post-Graduate students & comprehensive surgical care to community. He became Head of the Department of General Surgery on 8th October 2013 to 7th October 2015 (2 years) with teaching, treatment, research and administrative duties assigned to the post. He published surgical clinics of VSS Medical College Proceedings in 2014 and 2015. He has more than 32 years of experience in teaching and research field for which he is awarded with Dr. GS DAS MOHAPATRA ORATION AWARD-2013 and Dr. BP MISHRA ORATION AWARD-2015.



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