



A Brief History, Challenges and Types of the Experimental Bone Transplantation

Department of Innovative surgical technology, Nagasaki University, Japan

Bone transplantation refers to the process of transferring bone tissue from one location to another, either within such as autografts, allografts, and xenografts. Autografts involve harvesting bone tissue from one part of the patient's body and transplanting it to another part, while allografts involve obtaining bone tissue from another individual

- **Infection:** Bone tissue can be infected during harvesting, processing, or transplantation, leading to bone necrosis, sepsis, and other complications. Infections can be prevented by adhering to strict aseptic

Hiroo Soyama, Department of Innovative surgical technology, Nagasaki University, Japan, E-mail: hiroo67@gmail.com

01-May-2023, Manuscript No: jcet-23-98307; 04-May-2023, PreQC No: jcet-23-98307 (PQ); 18-May-2023, QC No: jcet-23-98307; 24-May-2023, Manuscript No: jcet-23-98307 (R); 30-May-2023, DOI: 10.4172/2475-7640.1000165

Soyama H (2023) A Brief History, Challenges and Types of the Experimental Bone Transplantation. J Clin Exp Transplant 8: 165.

© 2023 Soyama H. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

protocols, using sterile instruments and equipment, and treating infections promptly.

- Resorption: Bone tissue can be resorbed by the body over time, leading to loss of graft volume and function. Resorption can be minimized by using osteoconductive and osteoinductive materials, such as growth factors, scaffolds, and biomaterials [6].

Bone transplantation is a medical procedure that involves the transfer of bone tissue from one individual to another, or from one part of the body to another. This procedure is commonly used to treat a variety of medical conditions, including bone fractures, joint replacements, and bone defects. There are several types of bone transplantation that can be performed, each with its own advantages and disadvantages [7].

1. Swaminathan VV, Uppuluri R, Patel S, Ravichandran N, Ramanan KM, et al. (2020) Matched Family versus Alternative Donor Hematopoietic Stem Cell Transplantation for Patients with Thalassemia Major: Experience from a Tertiary Referral Center in South India. *Biol Blood Marrow Transplant* 26:1326-1331.
2. Choudhary D, Sharma SK, Gupta N, Kharya G, Pavecha P, et al. (2013) transplantation in patients with thalassemia major: a single-center experience from north India. *Biol Blood Marrow Transplant* 19:492-495.
3. Qatawneh M, Aljazazi M, Altarawneh M, Aljamaen H, Mustafa M, et al. (2021) Hematopoietic Stem Cell Transplantation During the Era of COVID-19 in Queen Rania Children's Hospital. *Mater Sociomed*. 33:131-137.
4. Shenoy S, Walters MC, Ngwube A, Soni S, Jacobsohn D, et al (2018) Unrelated Donor Transplantation in Children with Thalassemia using Reduced-Intensity Conditioning: The URTH Trial. *Biol Blood Marrow Transplant* 6:1216-1222.
5. Holtick U, Albrecht M, Chemnitz JM, Theurich S, Skoetz N, et al. (2014) Bone marrow versus peripheral blood allogeneic hematopoietic stem cell transplantation for haematological malignancies in adults. *Cochrane Database Syst Rev* 4:CD010189.
6. al. (2022) . *Front Pediatr* 10:901605.
7. Modell B, Darlison M (2008) Global epidemiology of haemoglobin disorders and derived service indicators. *Bull World Health Organ* 86:480–487.
8. Mohamed SY (2017) Thalassemia Major: Transplantation or Transfusion and Chelation. *Hematol Oncol Stem Cell Ther* 10:290–298.
9. Lucarelli G, Isgrò A, Sodani P, Gaziev J (2012) Hematopoietic stem cell transplantation in thalassemia and sickle cell anemia. *Cold Spring Harb Perspect Med* 2:118-125.
10. Reddy NM, Perales MA (2014) Stem cell transplantation in Hodgkin lymphoma. *Hematol Oncol Clin North Am* 28:1097-1112.