

เอกสารอ้างอิง

- Abbot, L.C., Schottstaedt, E.R., Saunders, J.B. and Bost, F.C. 1947. The evaluation of cortical and cancellous bone as grafting material. A clinical and experimental study. *J Bone Joint Surg* 29 : 381-414.
- Alderman, N.E. 1969. Sterile Plaster of Paris as an implant in the infrabony environment : A preliminary study. *J Periodontol* 40 : 11-13.
- Andereeg, C.R., Martin, S.J., Gray, J.L., Mellonig J.T., and Gher, M.E. 1991. Clinical evaluation of the use of decalcified freeze-dried bone allograft with guided tissue regeneration in the treatment of molar furcation invasions. *J Periodontol* 62 : 264-267.
- Baer, P.N., et al. 1979. Histologic healing of a human sclera graft against a root surface. *J Dent Res* (special issue A) 58 Abs. No.1019 : 346.
- Bang, G., Nordenram, A. and Anneroth, G. 1972. Allogenic demineralized dentine implants in jaw defects of Java monkeys. *Int J Oral Surg* 1 : 126-136.
- _____, and Urist, M.R. 1967. Bone induction in excavation chambers in matrix of decalcified dentine, A.M.A. *Arch Surg* 94 : 781-789.
- Barney, V.C., Levin, M.P. and Adams, D.F. 1986. Bioceramic implants in surgical periodontal defects. A comparison study. *J Periodontol* 57 : 764-770.

- Bell, W.H. 1964. Resorption characteristics of bone and bone substitutes. *Oral Surg Oral Med Oral Pathol* 17 : 650-657.
- _____. 1968. Current concepts of bone grafting. *J Oral Surg* 26 : 118-124.
- Beube, F.E. 1940. Daily observations on the formation of cementum, periodontal membrane and bone with the use of boiled cow bone powder. *J Dent Res* 19 : 426-427.
- _____. 1942. Observations on the formation of cementum, periodontal membrane, and bone, 20 months postoperatively, with the use of boiled cow bone powder. *J Dent Res* 21 : 298-299.
- _____. 1947. A study on reattachment of the supporting structures of the teeth. *J Periodontol* 18 : 55-66.
- _____. 1949. Factors in the repair of alveolar bone and cementum. *Oral Surg Oral Med Oral Pathol* 2 : 379-403.
- _____. 1952. A radiographic and histologic study on reattachment. *J Periodontol* 23 : 158-164.
- _____, and Silver, H.F. 1934. Influence of devitalized heterogenous bone-powder on regeneration of alveolar and maxillary bone of dogs. *J Dent Res* 14 : 15-19.
- _____, and Silver, H.F. 1936. Further studies on bone generation with the use of boiled heterogenous bone. *J Periodontol* 7 : 17-21.
- Beveridge, B.F., Fox, E.C., and Browne, R.M. 1977. The effect of scleral grafts in osseous defects in rabbits. *J Periodont Res* 12(6) : 454-461.

- Bhaskar, S.N., Brady, J.M., Getter, L., Grower, M.F. and Driskell, T. 1971. Biodegradable ceramic implants in bone. Electron and light microscopic analysis. *Oral Surg Oral Med Oral Pathol* 32 : 336-346.
- Bierly, J.A., and Sottosanti, J.S. 1974. Osseous filtration : An improved technique for bone implantation. *J Periodontol* 45 : 414-420.
- Bloom, W. 1960. A note on osteogenesis by myeloid reticular cells. *J Infect Dis* 107 : 11-14.
- Blumenthal, N.M. 1988. The effect of supracrestal tricalcium phosphate ceramic-microfibrillar collagen grafting on post surgical soft tissue levels. *J Periodontol* 59 : 18-22.
- _____, and Steinberg, J. 1990. The use of collagen membrane barriers in conjunction with combined demineralized bone collagen gel implants in human infrabony defects. *J Periodontol* 61 : 319-325.
- Bowers, G.M., et al. 1989. Histologic evaluation of new attachment apparatus formation in humans. Part III. *J Periodontol* 60 : 683-693.
- _____, Vargo, J.W., Levy, B., Emerson, J.R., and Bergquist, J.J. 1986. Histologic observations following the placement of tricalcium phosphate implants in human intrabony defects. *J Periodontol* 57 : 286-293.
- Boyne, P.J. 1970. Autogenous cancellous bone and marrow transplants. *Clin Orthop* 73 : 199-209.
- _____. 1974. Osseous grafts and implants in the restoration of large oral defects. *J Periodontol* 45 : 378-384.

- Bump, R.L., Salimeno, T., Hooker, S.P., and Wilkinson, E.G. 1975. The use of woven ceramic fabric as a periodontal allograft. *J Periodontol* 46 : 453-458.
- Buring, K., and Urist M.R. 1967. Effects of ionizing radiation on the bone induction principle in the matrix of bone implants. *Clin Orthop* 55 : 225-229.
- Burnette, E.W., Jr. 1972. Fate of an iliac crest grafts. *J Periodontol* 43 : 88-90.
- Burwell, R.G. 1966. Studies in the transplantation of bone. VIII. Treated composite homografts-autografts of cancellous bone : an analysis of inductive mechanisms in bone transplantation. *J Bone Joint Surg (Br)* 48B : 532-565.
- _____, and Gowland, G. 1962. Studies in the transplantation of bone. III. The immune responses of lymph nodes draining components of fresh homologous cancellous bone and homologous bone treated by different methods. *J Bone Joint Surg (Br)* 44B : 131-148.
- Carranza, F.A., Jr., et al. 1987. Histologic study of healing of human periodontal defects after placement of porous hydroxylapatite implants. *J Periodontol* 58 : 682-688.
- Christersson, L.A., Slots, J., Rosling, B.G. and Genco, R.T. 1985. Microbiological and clinical effects of surgical treatment of localized juvenile periodontitis. *J Clin Periodontol* 12 : 465-476.

- Claffey, N., Bogle, G., Bjornvatn, K., Selvig, K.A. and Egelberg, J. 1987. Topical application of tetracycline in regenerative periodontal surgery in beagles. *Acta Odontol Scand* 45 : 141-146.
- Cross, W.G. 1955. Bone grafts in periodontal disease. *Dent Pract Dent Rec* 6 : 98-101.
- _____. 1957a. Bone implants in periodontal disease a further study. *J Periodontol* 28 : 184-191.
- _____. 1957b. The histology of a bone implant. *Dent Pract Dent Rec*. 8 : 26-27.
- Diem, C.R., Bowers, G.M. and Moffitt, W.C. 1972. Bone blending : A technique for osseous implants. *J Periodontol* 43 : 295-297.
- Dragoo, M.R., and Kaldahl, W.B. 1983. Clinical and histological evaluation of alloplasts and allografts in regenerative periodontal surgery in humans. *Int J Periodontics Restorative Dent* 3 (2) : 9-29.
- _____, and Sullivan, H.C. 1973a. A clinical and histological evaluation of autogenous iliac bone grafts in humans : Part I. Wound healing 2 to 8 months. *J Periodontol* 44 : 599-613.
- _____, and Sullivan, H.C. 1973b. A clinical and histological evaluation of autogenous iliac bone grafts in humans : Part II. External root resorption. *J Periodontol* 44 : 614-625.
- Drury, G. and Yukna, R.A. 1980. Effect of topical tetracycline on bone regeneration following freeze-dried bone allografts. *J Dent Res* 59 Abs. No.387 : 364.

- Ellegaard, B., Karring, T., Listgarten, M., and Loe, H. 1973. New attachment after treatment of interradicular lesions. *J Periodontol* 44 : 209-217.
- _____, Karring, T., Davies, R., and Loe, H. 1974. New attachment after treatment of intrabony defects in monkeys. *J Periodontol* 45 : 368-377.
- _____, and Loe, H. 1971. New attachment of periodontal tissues after treatment of infrabony lesions. *J Periodontol* 42 : 648-652.
- _____, Nielson, I.M., and Karring, T. 1976. Composite jaw and iliac cancellous bone grafts in intrabony defects in monkeys. *J Periodont Res* 11(5) : 299-310.
- Evan, G.H., Yukna, R.A., Sepe, W.W., Mabry, T.W. and Mayer, E.T. 1989. Effect of various graft materials with tetracycline in localized juvenile periodontitis. *J Periodontol* 60 : 491-497.
- Ewen, S.J. 1965. Bone swaging. *J Periodontol* 36 : 57-63.
- Feingold, J.P., Chasens, A.I., Doyle, J., and Alfano, M.C. 1977. Preserved scleral allografts in periodontal defects in man. II. Histological evaluation. *J Periodontol* 48 : 4-12.
- Forsberg, H. 1956. Transplantation of Os Purum and bone chips in the surgical treatment of periodontal disease (Preliminary report). *Acta Odontol Scand* 13(4) : 235-238.
- Frank, R.M., Klewansky, P., Hemmerle, J., and Tenenbaum, H. 1991. Ultrastructural demonstration of the importance of crystal size of bioceramic powders implanted into human periodontal lesions. *J Clin Periodontol* 18 : 669-680.

- Friedlaender, G.E., Strong, D.M., and Sell, K.W., 1976. Studies on the antigenicity of bone. I. Freeze-dried bone allografts in rabbits. *J Bone Joint Surg* 58 : 854-858.
- From coral to Biocoral^(R). 1989. INOTEB Saint-Gonnery 56920 Noyal-Pontivy FRANCE.
- Froum, S.J., Kushner, L., Scopp, I.W., and Stahl, S.S. 1982. Human clinical and histological responses to durapatite implants in intraosseous lesions. Case reports. *J Periodontol* 53 : 719-725.
- _____, et al., 1976. Osseous autografts. III. Comparison of osseous coagulum - bone blend implants with open curettage. *J Periodontol* 47 : 287-294.
- Froum, S.J., Thaler, R., Scopp, I.W., and Stahl, S.S. 1975. Osseous autografts. I. Clinical responses to bone blend or hip marrow grafts. *J Periodontol* 46 : 515-521.
- Fukui, H., Taki, Y., and Abe Y. 1977. Implantation of new calcium phosphate glass ceramics. *J Dent Res* 56 : 1260.
- Gay, C.V., and Muller, W.J. 1984. Carbonic anhydrase and osteoclast : localization by labeled inhibitor autoradiography. *Science* 183 : 432-434.
- Golub, L.M., et al. 1983. Minocycline reduces gingival collagenolytic activity during diabetes. *J Periodont Res* 18 : 516-526.
- _____, et al. 1984. Tetracyclines inhibit tissue collagenase activity. *J Periodont Res* 19 : 651-655.

- _____, et al. 1985. Tetracyclines inhibit tissue collagenases. Effects of ingested low dose and local delivery systems. *J Periodontol* 56 (suppl) : 93-97.
- Goodson, J., Hogan, P. and Dunham, S. 1985. Clinical responses following periodontal treatment by local drug delivery. *J Periodontol* 56 (suppl) : 81-87.
- _____, Offenbacher, S., Farr, D. and Hogan, P. 1985. Periodontal disease treatment of local drug delivery. *J Periodontol* 56 : 265-272.
- Gottlow, J., Nyman, S., Karring, T. and Lindhe, J. 1984. New attachment formation as a result of controlled tissue regeneration. *J Clin Periodontol* 11 : 494-503.
- _____, Nyman, S., Lindhe J., Karring, T., and Wennstrom. 1986. New attachment formation in the human periodontium by guided tissue regeneration. Case reports. *J Clin Periodontol* 13 : 604-616.
- Guillemin, G., Patat, J.L., Fournie, J., and Chetail, M., 1987. The use of coral as a bone graft substitute. *J Biomed Mater Res* 21 : 557-567.
- Haggerty, P.C. 1977. Human allografts - The efficient therapeutic approach to the infrabony defect. *J Periodontol* 48(12) : 743-753.
- _____, and Maeda, I. 1971. Autogenous bone grafts : A revolution in the treatment of vertical bone defects. *J Periodontol* 42 : 626-641.
- Hammer, W.B., Topazian, R.G., McKinney, R.V. Jr., Hulbert, S.F. 1973. : Alveolar ridge augmentation with ceramics. *J Dent Res* 52 : 356-361.

- Hegedus, Z. 1923. The rebuilding of the alveolar processes by bone transplantation. *Dent Cosmos* 65 : 736-742.
- Heiple, K.G., Chase, S.W. and Herndon, C.H. 1963. A comparative study of the healing process following different types of bone transplantation. *J Bone Joint Surg* 45 : 1593-1616.
- Hiatt, W.H., and Schallhorn, R.G. 1973. Intra oral transplants of cancellous bone and marrow in periodontal lesions. *J Periodontol* 44 : 194-208.
- _____, Schallhorn, R.G., and Aaronian, A.J. 1978. The induction of new bone and cementum formation. IV. Microscopic examination of the periodontium following human bone and marrow allograft, autograft and nongraft periodontal regeneration procedures. *J Periodontol* 49 : 495-512.
- _____, Larato, D.C., Hiatt, W.R., and Lindfors, K.W. 1986. The induction of new bone and cementum formation. V. A comparison of graft and control in sites in deep intrabony periodontal lesions. *Int J Periodontics Restorative Dent* 6(5) : 8-21.
- Holmes, R.E. 1979. Bone regeneration within a coralline hydroxyapatite implant. *Plast Reconstr Surg* 63: 626-633.
- Hulbert, S.F., and Stelling, F.H. 1970. Potential of ceramic materials as permanently implantable skeletal protheses. *J Biomed Mater Res* 4 : 433-440.

- Huggins, C.B., and Urist, M.R. 1970. Dentine matrix transformation: Rapid induction of alkaline phosphatase and cartilage. *Science* 167 : 896-898.
- Hutchinson, R.A. 1973. Osseous coagulum collection filter. *J Periodontol* 44 : 688-690.
- Irrigaray, J.L., et al. 1987. A study of atomic elements diffusion in coral after implantation "in vivo". *Calcified tissues and biomaterials. Biomat* : 241-248.
- Issahakian, S., and Ouhayoun, J.P. 1988. Clinical and histologic evaluation of a new filling material : natural coral. *J Parodontol* 8 : 251-259.
- _____, Ouhayoun, J.P., Shabana, A.H.M., and Sawaf, H.M. 1989. Evaluation of a new biomaterial in periodontal defects : natural coral. *J Dent Res* 68 Abs. No.275 : 643.
- Kenney, E.B., et al. 1988. The use of a porous hydroxyl apatite implant in periodontal defects. II. Treatment of class II furcation lesions in lower molars. *J Periodontol* 59 : 67-72.
- _____, Lekovic, V., Han, T., Carranza, F.A., Jr., and Dimitrijevic, B. 1985. The use of a porous hydroxylapatite implant in periodontal defects. I. Clinical results after six months. *J Periodontol* 56 : 82-88.
- Klawitter, J.J., and Hulbert, S.F. 1972. Application of porous ceramics for the attachment of load bearing internal orthopedic application. *J Biomed Mater Res* 5 : 161-169.
- Klingsberg, J. 1972. Preserved sclera in periodontal surgery. *J Periodontol* 43 : 634-639.

- _____. 1974. Periodontal scleral grafts and combined grafts of sclera and bone : Two year appraisal. *J Periodontol* 45 : 262-272.
- Kornman, K.S. and Robertson, P.B. 1985. Clinical and microbiological evaluation of therapy for juvenile periodontitis. *J Periodontol* 56 : 443-446.
- Krejci, C.B., Bissada, N.F., Farah, C., and Greenwell, H. 1987. Clinical evaluation of porous and nonporous hydroxylapatite in the treatment of human periodontal bony defects. *J Periodontol* 58 : 521-528.
- Kucaba, W.J., and Simpson, D.M. 1978. Incidence and distribution of hematopoietic marrow in human maxillary tuberosity. *J Dent Res* (Special issue A) 57 Abs. No.265 : 141.
- Kudryk, V.L. 1990. Toxic effect of ethylene oxide sterilized freeze-dried bone allograft on human gingival fibroblasts. *J Periodontol* 61 Abstract : 309.
- Levin, et al., 1974. Biodegradable ceramic in periodontal defects. *Oral Surg Oral Med Oral Pathol* 38 : 344-351.
- Libin, B.W., Ward, H.L., and Fishman, L. 1975. Decalcified, lyophilized bone allografts for use in human periodontal defects. *J Periodontol* 46 : 51-56.
- Mabry, T.W., Yukna, R.A. and Sepe, W.W. 1985. Freezed-dried bone allografts combined with tetracycline in the treatment of juvenile periodontitis. *J Periodontol* 56 : 74-81.

- Mann, W.V. 1964. Autogenous transplant in the treatment of an infrabony pocket. Case report. *Periodontics* 2 : 205-208.
- Mantzavinos, Z., and Listgarten, M.A. 1970 : Thyrocalcitonin stimulated bone formation by local application to rat calvaria in vivo. *J Periodontol* 41 : 663-665.
- McLean, T.N., Smith, B.A., Caffesse, R.G., Nasjleti, C.E. and Castelli, W.A. 1988. Tetracycline root conditioning in reattachment procedures. *J Dent Res* 67 Abs. No.1735 : 329.
- Melcher, A.H. 1962. The use of heterogenous anorganic bone as an implant material in oral procedures. *Oral Surg Oral Med Oral Pathol* 15 : 996-1000.
- Meffert, R.M., Thomas, J.R., Hamilton, K.M., and Brownstein, C.R. 1985. Hydroxyapatite as an alloplastic graft in the treatment of human periodontal osseous defects. *J Periodontol* 56 : 63-73.
- Mellonig, J.T. 1980. Alveolar bone induction. Autografts and allografts. *Dent Clin North Am* 24 : 719-737.
- _____. 1984. Decalcified freeze-dried bone allografts as an implant material in human periodontal defects. *Int J Periodontics Restorative Dent* 4 (6) : 41-55.
- _____, Bowers, G.M., and Bailey, R.C. 1981. Comparison of bone graft materials. Part I. New bone formation with autografts and allografts determined by strontium-85. *J Periodontol* 52 : 291-296.

- _____, Bowers, G.M., Bright, R.W., and Lawrence, J.J. 1976. Clinical evaluation of freeze-dried bone allografts in periodontal osseous defects. *J Periodontol* 47 : 125-131.
- _____, Bowers, G.M., and Cotton, W. 1981. Comparison of bone graft materials. Part II. New bone formation with autografts and allografts : A histologic evaluation. *J Periodontol* 52 : 297-302.
- _____, and Levy, R.A. 1984. The effect of different particle sizes of freeze-dried bone allograft on bone growth. *J Dent Res* 63 (Special issue) Abs. No.461 : 222.
- Metsger, D.S., Driskell, T.D., and Paulsrud, J.R. 1982. Tricalcium phosphate ceramic. A resorbable bone implant : Review and current status. *J Am Dent Assoc* 105 : 1035-1038.
- Miller, s.c. 1943. Textbook of periodontia. pp. 103. Philadelphia: The Blakiston Co.
- Moskow, B.S., Gold, S.I., and Gottsegen, R. 1976 : Effects of scleral collagen upon the healing of experimental osseous wounds. *J Periodontol* 47 : 596-606.
- _____, and Lubar, A. 1983. Histological assessment of human periodontal defect after durapatite ceramic implant. Report of a case. *J Periodontol* 54 : 455-462.
- Movin, S., and Borring-Moller, G. 1982. Regeneration of infrabony periodontal defects in humans after implantation of allogenic demineralized dentin. *J Clin Periodontol* 9 : 141-147.

- Nabers, C.L., and O'Leary, T.J. 1965. Autogenous bone transplants in the treatment of osseous defects. *J Periodontol* 36 : 5-14.
- _____, and O'Leary, T.J. 1967. Autogenous bone grafts : case report. *Periodontics* 5 : 251-253.
- _____, Reed, O.M., and Hammer, J.E. 1972. Gross and histologic evaluation of an autogenous bone graft 57 months postoperatively. *J Periodontol* 43 : 702-704.
- Narang, R., and Wells, H., 1972. Bone induction in experimental periodontal bony defects in dogs with decalcified allogenic bone matrix grafts. *Oral Surg Oral Med Oral Pathol* 33 : 306-313.
- Nelson, J.F., Stanford, H.G., and Cutright, D.E. 1977. Evaluation and comparisons of biodegradable substance as osteogenic agents. *Oral Surg Oral Med Oral Pathol* 43 : 836-843.
- Nery, E.B., Lynch, K.L., 1978. Preliminary clinical studies of bioceramic in periodontal osseous defects. *J Periodontol* 49 : 523-527.
- _____, Lynch, K.L., Hirthe, W.M., and Mueller, B.H. 1975. Bioceramic implants in surgically produced infrabony defects. *J Periodontol* 46 : 328-347.
- Newman, M.G. and Boyne, P.I. 1971. The effect of calcified bone matrix on the osteogenic potential of hematopoietic marrow. *Oral Surg Oral Med Oral Pathol* 32 : 506-512.
- Ogiso, M., et al. 1985. Hydroxyapatite granules (porous and dense); Experimental study of osteogenic differences. *Trans 11th Ann Meet Soc Biomater; 17th Int Biomater Symp.* : 112.

- O'Leary, T.J., Drake, R.B., and Naylor, J.E. 1972. The plaque control record. *J Periodontol* 43 : 38.
- Older, L.B. 1967. The use of heterogenous bovine bone implants in the treatment of periodontal pockets. *J Periodontol* 38 : 539-549.
- Otomo, J.A., and Sims, T.N. 1979. Effects of citric acid demineralization on coronally repositioned flaps. *J Dent Res (Special Issue A)* 58 Abs. No. 1021 : 347.
- Ouhayoun, J.P., et al. 1989a. Influence of biomaterials on the healing pattern of bony defects in miniature pig mandible. *J Dent Res* 68 (Special issue) Abs. No.1244 : 1022.
- _____, et al. 1989b. Histological evaluation of alloplastic grafting materials in an animal closed model. *J Dent Res* 68 Abs. No.275 : 643.
- _____, Patat, J.L., Sawaf, A.H.M., Guillemin, G. and Forest, N. 1991. Histologic comparison of hydroxylapatite, tricalciumphosphate and calcium carbonate materials implanted in palatal connective tissue of miniature pigs. *J Dent Res* 70 (Special issue) Abs. No.1940 : 508.
- Passell, M.S., Bissada, N.F., and Scaletta, L.J. 1977. Histomorphologic evaluation of scleral grafts in experimental bony defects. *J Periodontol* 48 : 311-317.
- Patur, B. 1974. Osseous defects : Evaluation of diagnostic and treatment methods. *J Periodontol* 45 : 523-541.

- _____, and Glickman, I. 1962. Clinical and roentgenographic evaluation of the post-treatment healing of infrabony pockets. *J Periodontol* 33 : 164-171.
- Pearson, G.E., Rosen, S., and Deporter, D.A. 1981. Preliminary observations on the usefulness of a decalcified freeze-dried cancellous bone allografts material in periodontal surgery. *J Periodontol* 52 : 55-59.
- Quintero, G., Mellonig, J.T., Gambill, V.M., and Pelleu, G.B., Jr. 1982. A six-month clinical evaluation of decalcified freeze-dried bone allografts in periodontal osseous defects. *J Periodontol* 53 : 726-730.
- Rabalais, M.L., Yukna, R.A., and Mayer, E.T. 1981. Evaluation of durapatite ceramic as an alloplastic implant in periodontal osseous defects. I. Initial six-month results. *J Periodontol* 52 : 680-689.
- Randell, B.L., and Cassingham, R.J. 1980. A clinical evaluation of Proplast as a periodontal implant material. *J Periodontol* 51 : 110-115.
- Randentz, W.H. and Collings, C.K. 1965. The implantation of Plaster of Paris in the alveolar process of the dog. *J Periodontol* 36 : 357-364.
- Ray, R.D., and Sabet, T.Y. 1963. Bone grafts : Cellular survival versus induction. An experimental study in mice. *J Bone Joint Surg (Am)* 45A : 337-344.

- Register, A.A., and Burdick, F.A. 1975. Accelerated reattachment with cementogenesis to dentin demineralized in situ. I. Optimum range. *J Periodontol* 46 : 646-655.
- _____. 1976. Accelerated reattachment with cementogenesis to dentin demineralized in situ. II. Defect repair. *J Periodontol* 47 : 497-505.
- _____, Scopp, I.W., Kassouny, D.Y., Pfau, F.R., and Peskin, D. 1972. Human bone induction by allogenic dentin matrix. *J Periodontol* 43 : 459-467.
- Robinson, R.E. 1969. Osseous coagulum for bone induction. *J Periodontol* 40 : 503-510.
- Rosenberg, M.M. 1971a. Free osseous tissue autografts as a predictable procedure. *J Periodontol* 42 : 195-209.
- _____. 1971b. Reentry of an osseous defect treated by a bone implant after a long duration. *J Periodontol* 42 : 360-363.
- Rosenberg, E.S., Garber, D.A., and Abrams, B. 1979. Repair of bony defects using an intraoral exostosis as the donor site : A case report. *J Periodontol* 50 : 476-478.
- Ross, S.E., and Cohen, D.W. 1968. The fate of a free osseous tissue autograft. A clinical and histologic case report. *Periodontics* 6 : 145-151.
- _____, Malamed, E.H., and Amsterdam, M. 1966. The contiguous autogenous transplant-its rationale, indications and technique. *Periodontics* 4 : 246-255.

- Sanders, J.J., et al., 1978. A clinical evaluation of freeze-dried bone allografts used in combination with autogenous bone in periodontal osseous defects. J Dent Res (Special issue A) 57 Abs.No. 105 : 101
- _____, et al., 1983. Clinical evaluation of freeze-dried bone allografts in periodontal osseous defects. Part III. Composite freeze-dried bone allografts with and without autogenous bone grafts. J Periodontol 54 : 1-8.
- Schaffer, E.M. 1956. Cartilage transplants into the periodontium of rhesus monkeys. Oral Surg Oral Med Oral Pathol 9 : 1233-1246.
- _____. 1958. Cartilage grafts in human periodontal pockets. J Periodontol 29 : 176-182.
- Schallhorn, R.G. 1967. Eradication of bifurcation defects utilizing frozen autogenous hip marrow implants. J West Soc Periodontal Abstr 15 : 101-105.
- _____. 1972. Postoperative problems associated with iliac transplants. J Periodontol 43 : 3-9
- _____, and Colo, D. 1968. The use of autogenous hip marrow biopsy implants for bony crater defects. J Periodontol 39 : 145-147.
- _____, and Hiatt, W.H. 1972. Human allografts of iliac cancellous bone and marrow in periodontal osseous defects. II. Clinical observations. J Periodontol 43 : 67-81.
- _____, Hiatt, W.H., and Boyce, W. 1970. Iliac transplants in periodontal therapy. J Periodontol 41: 566-580.

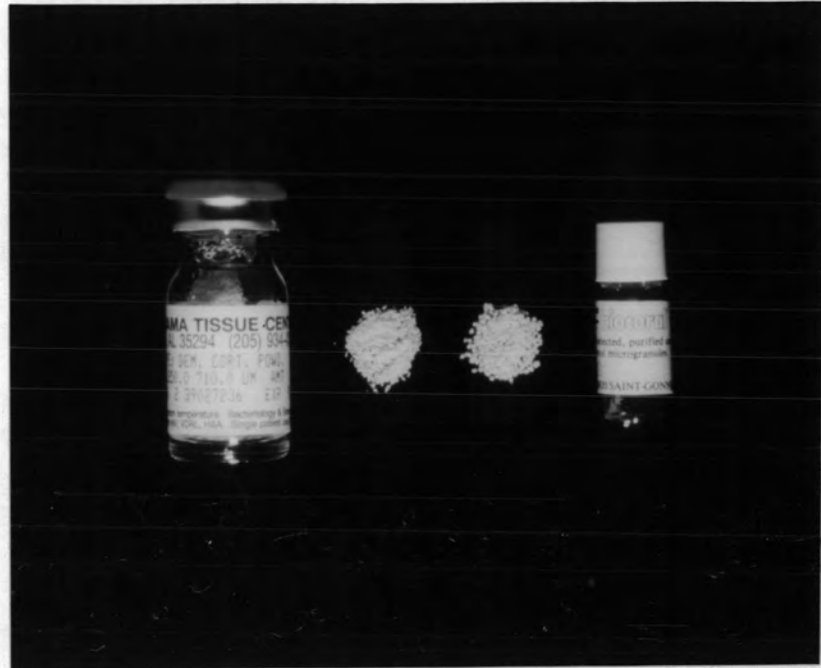
- Scoop, I.W., Kassouny, D.Y., and Morgan, F.H. 1966. Bovine bone (Boplant). *J Periodontol* 37 : 400-407.
- _____, Morgan, F.H., Dooner, J.J., Fredries, H.J., and Heyman, R.A. 1966. Bovine bone (Boplant) implants for infrabony oral lesions. *Periodontics* 4 : 169-176.
- Seibert, J.S. 1970. Reconstructive periodontal surgery : Case report. *J Periodontol* 41 : 113-117.
- Selting, W.J., and Bhaskar, S.N. 1973. Structural strength of the interface between bone and nondegradable porous ceramic implants. *J Dent Res* 52 : 91-95.
- Sepe, W.W., Bowers, G.M., Lawrence, J.J., Friedlaender, G.E., and Koch, R.W. 1978. Clinical evaluation of freeze-dried bone allografts in periodontal osseous defects. II. *J Periodontol* 49 : 9-14.
- Shabana, A.H.M., Ouhayoun, J.P., Patat, J.L., and Forest, N. 1989. Gingival reaction to three gingival implant materials. *J Dent Res* 68 Abs. No.280 : 644
- Shaffer, C.D., and App., G.R. 1971. The use of plaster of Paris in treating infrabony periodontal defects in humans. *J Periodontol* 42 : 685-690.
- Shapoff, C.A., Bowers, G.M., Levy, B., Mellonig, J.T., and Yukna, R.A. 1980. The effect of particle size on the osteogenic activity of composite grafts of allogenic freeze-dried bone and autogenous marrow. *J Periodontol* 51 : 625-630.

- Sheppard, W.K., Bahat, O., Joseph, C.E., LoPiccolo, P., and Bernick, S. 1986. Human clinical and histological responses to a calcitite[®] implant in intraosseous lesions. *Int J Periodontics Restorative Dent* 6(3) : 47-63.
- Sigurdson, A. 1972. Orala benimplantat. *Swed Dent J* 65 : 33-40.
- Silverstein, L., Bissada, N., Manouchehr-Pour, M. and Greenwell, H. 1988. Clinical and microbiologic effects of local tetracycline irrigation in periodontitis. *J Periodontol* 59 : 301-305.
- Simasaki, M., and Yagi, T. 1960. Histochemistry of carbonic anhydrase with special reference to the osteoclast. *Dent Bull Osaka Univ* 1 : 89-98.
- Socransky, S.S. 1977. Microbiology of periodontal disease present status and future considerations. *J Periodontol* 48 : 497-504.
- Soehren, S.E., and Van Swol, R.L. 1979. The healing extraction site : A donor area for periodontal grafting material. *J Periodontol* 50 : 128-133
- Stahl, S.S., and Froum, S. 1986. Histologic evaluation of human intraosseous healing response to the placement of tricalcium phosphate ceramic implants. I. Three to eight months. *J Periodontol* 57 : 211-217.
- _____, and Froum, S. 1987. Histologic and clinical responses to porous hydroxylapatite implants in human periodontal defects. Three to twelve months postimplantation. *J Periodontol* 58 : 689-695.

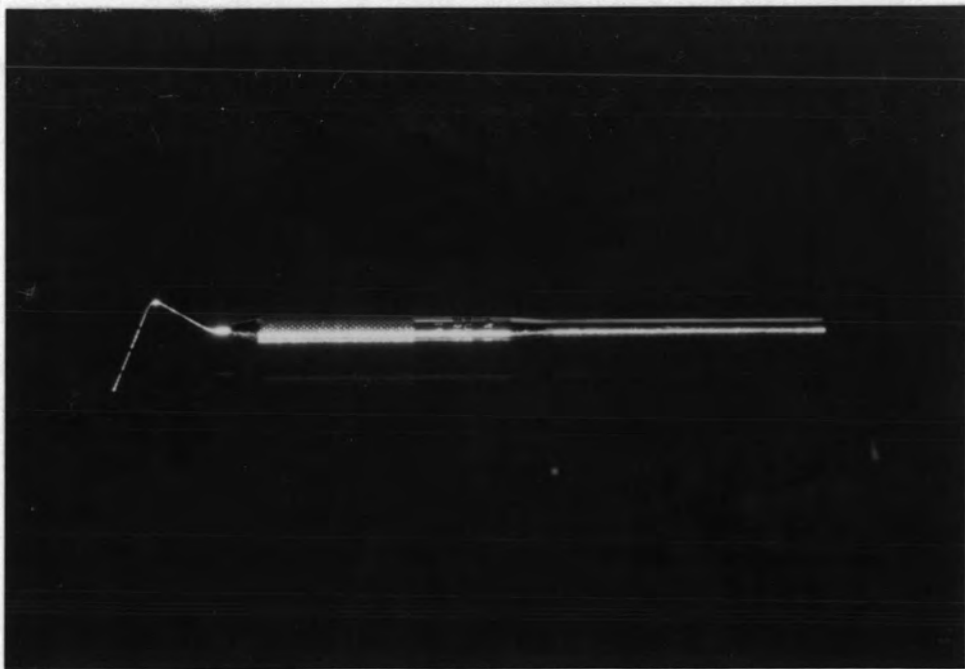
- Terranova, V.R., Franzetti, L.C., Hic, S. et al., 1986.
A biochemical approach to periodontal regeneration: Tetracycline treatment of dentin promotes fibroblast adhesion and growth. *J Periodont Res* 21 : 330-337.
- The American Academy of Periodontology. 1992. *Glossary of Periodontal terms*. 3rd Edition : 37.
- Topazian, R.G., Hammer, W.B., Boucher, L.J., and Hulbert, S.F. 1971. Use of alloplastics for ridge augmentation. *J Oral Surg* 29 : 792-798.
- Towle, H.J., Auclair, P.L., and Ragsdale, B. 1987. Sterilization and bone induction by demineralized bone matrix (DBM). *J Periodontol* 58 : 129.
- Turnbull, R.S., Freeman, E., and Melcher, A. H. 1976. Histological evaluation of the osteogenic capacity of sclera. *J Periodont Res* 11 : 368-373.
- Turner, D.W. and Mellonig, J.T. 1981. Antigenicity of freeze-dried bone allografts in periodontal osseous defects. *J Periodont Res* 16 : 89-99.
- Urist, M.R. 1965. Bone formation by autoinduction. *Science* 150 : 893-899.
- _____. 1970. The substratum for bone morphogenesis. *Devlop Biol Suppl* 4 : 125.
- _____, et al., 1970. Quantitation of new bone formation in intramuscular implants of bone matrix in rabbit. *Clin Orthop* 68 : 279-285.
- _____, Delang, R.J., and Finerman, G.A.M., 1983. Bone cell differentiation and growth factors. *Science* 220 : 680-686.
- _____, and Dowell, T. 1968. The inductive substratum for osteogenesis in pellets of particulate bone matrix. *Clin Orthop* 61 : 61.

- _____, Mikluski, A., and Boyd, S. 1975. A chemo-sterilized, antigen - extracted, autodigested alloimplant for bone banks. *Arch Surg* 110 : 416-428.
- _____, and Strates, B.S. 1971. Bone morphogenetic protein. *J Dent Res* 50 : 1392-1406.
- Van de Putte, K.A. and Urist, M.R. 1965. Osteogenesis in the interior of intramuscular implants of decalcified bone matrix. *Clin Orthop* 43 : 257-270.
- Wade, A.B. 1971. An evaluation of reparative procedures in periodontal surgery. *Int Dent J* 21 : 46-60.
- Werbitt, M. 1987. Decalcified freeze-dried bone allografts : A successful procedure in the reduction of intrabony defects. *Int J Periodontics Restorative Dent* 7(5) : 57-63.
- Wientroub, S., and Reddi, A.,H. 1988. Influence of irradiation on the osteogenic potential of demineralized bone matrix. *Calcif Tissue Int* 42 : 255-260.
- Wikesjo, U., Baker, P., Christersson, L.A., et al., 1986. A biochemical approach to periodontal regeneration: Tetracycline treatment condition dentin surfaces. *J Periodont Res* 21 : 322-329.
- Yeomans, J.D., and Urist M.R. 1967. Bone induction by decalcified dentine implanted into oral, osseous, and muscle tissues. *Arch Oral Biol* 12 : 999-1008.
- Yukna, R.A., et al. 1985. Evaluation of durapatite ceramic as an alloplastic implant in periodontal osseous defects. II. Twelve months reentry results. *J Periodontol* 56 : 540-547.

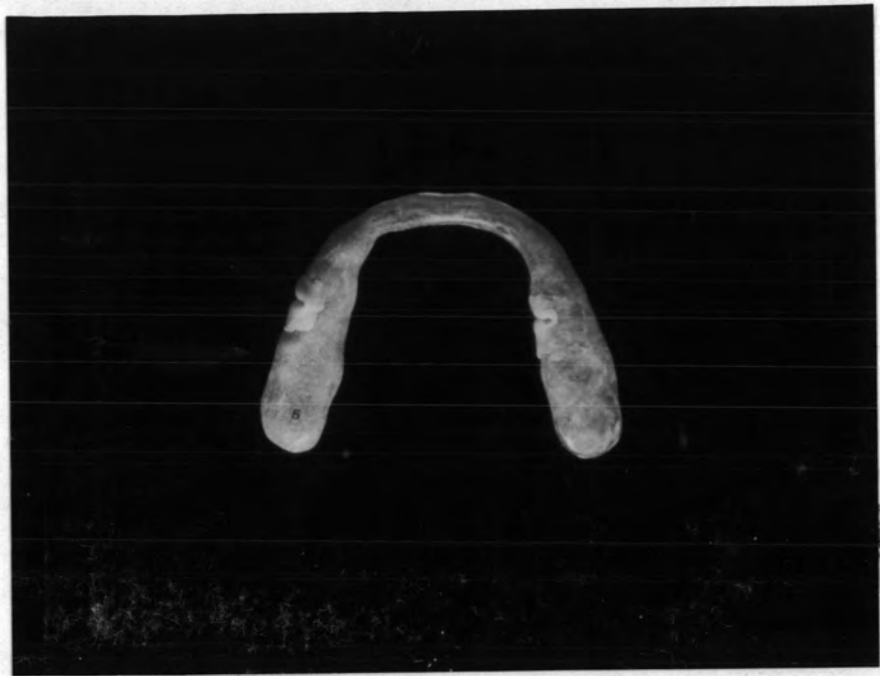
- _____, et al. 1986. Six months evaluation of Calcitite[®] (hydroxyapatite ceramic) in periodontal osseous defects. *Int J Periodontics Restorative Dent* 6(3) : 35-45.
- _____, Mayer, E.T., and Brite, D.V. 1984. Longitudinal evaluation of durapatite ceramic as an alloplastic implant in periodontal defects after 3 years. *J Periodontol* 55 : 633-637.
- _____, and Sepe, W. 1982. Clinical evaluation of localized periodontosis defects treated with freeze-dried bone allografts combined with local and systemic tetracycline. *Int J Periodontics Restorative Dent* 2 : 9-15.
- Zaner, D.J., and Yukna, R.A. 1984. Particle size of periodontal bone grafting materials. *J Periodontal* 55 : 406-409.
- Zislis, T., et al. 1989. A scanning electron microscopic study of in vitro toxicity of ethylene-oxide sterilized bone repair materials. *J Oral Implantol* 15 : 41-46.



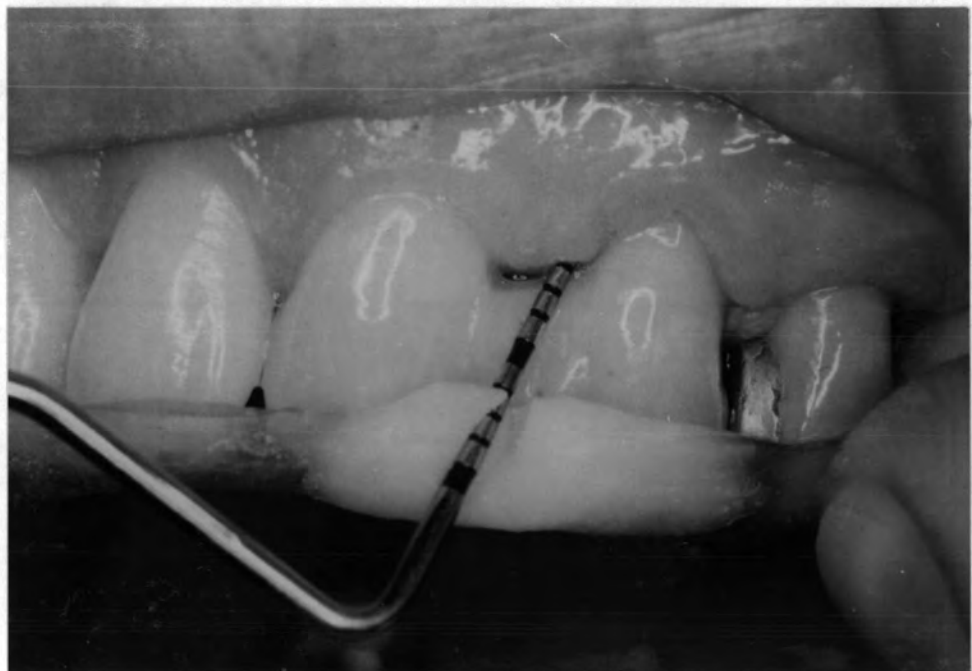
ภาพที่ 1 สารปลูกกระดูก ติมีเนอร์ไลซ์ ฟรีส-ดรายด์ โบน (ซ้าย)
และ โพรัส แคลเซียม คาร์บอเนต (ขวา)



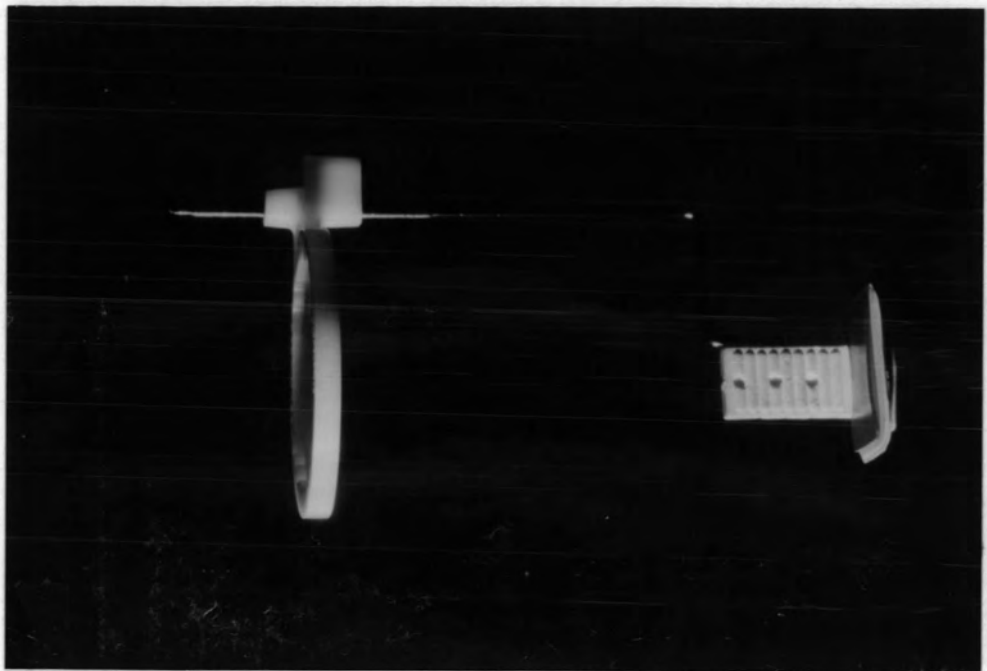
ภาพที่ 2 เครื่องมือตรวจปริทันต์



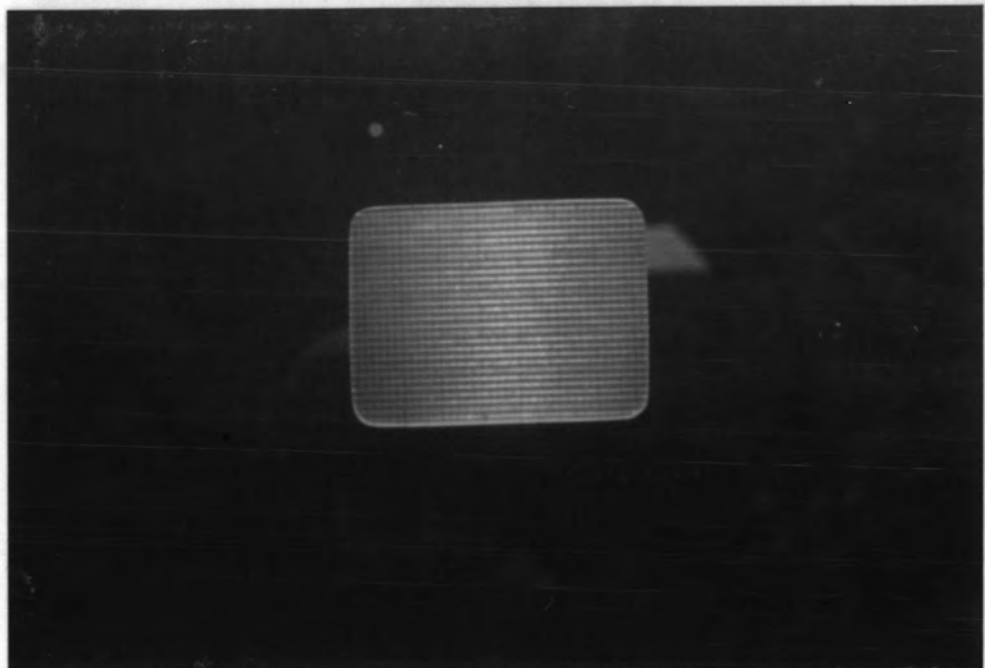
ภาพที่ 3 สเตนจ์



ภาพที่ 4 ลักษณะการตรวจวัดพยาธิสภาพ



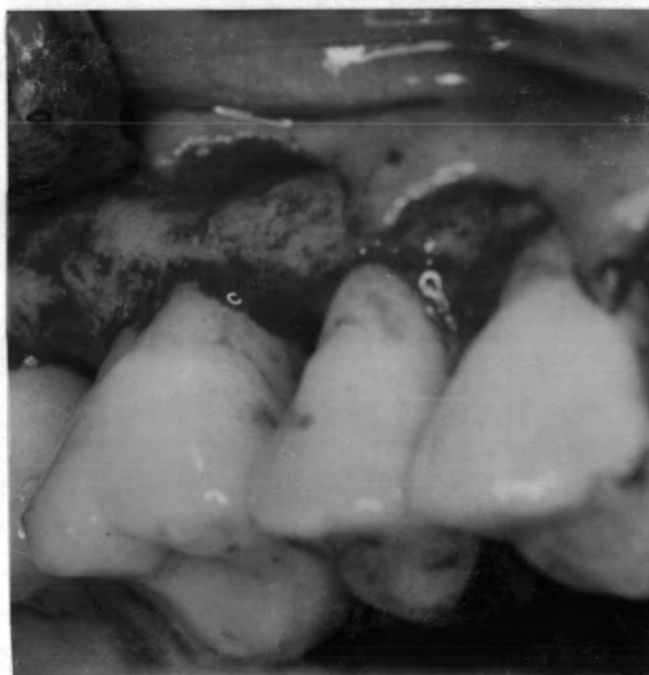
ภาพที่ 5 เครื่องมือจับฟิล์ม



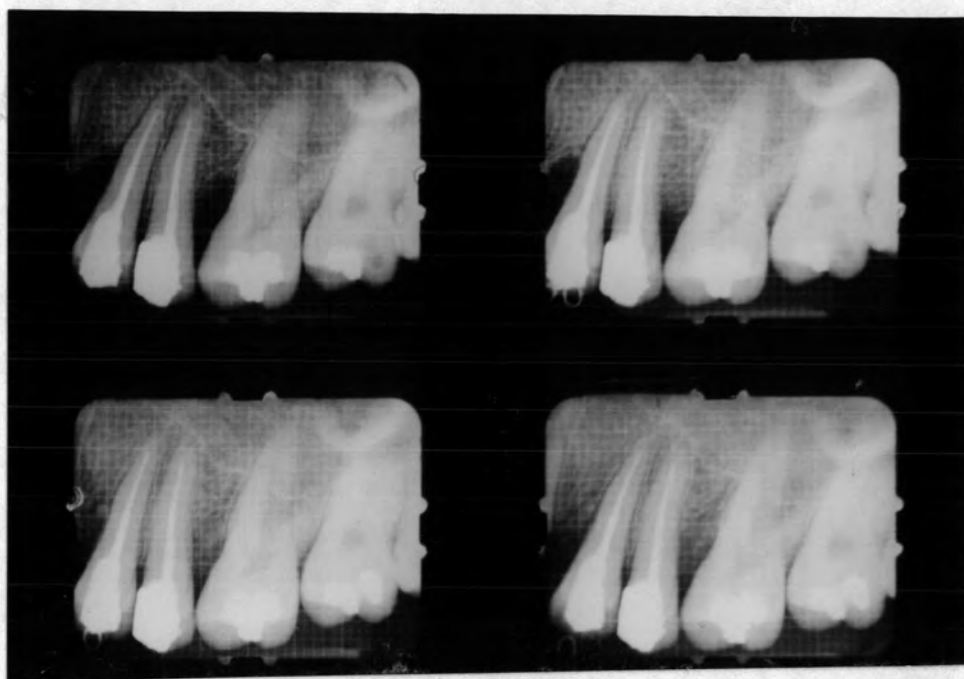
ภาพที่ 6 แผ่นกริด



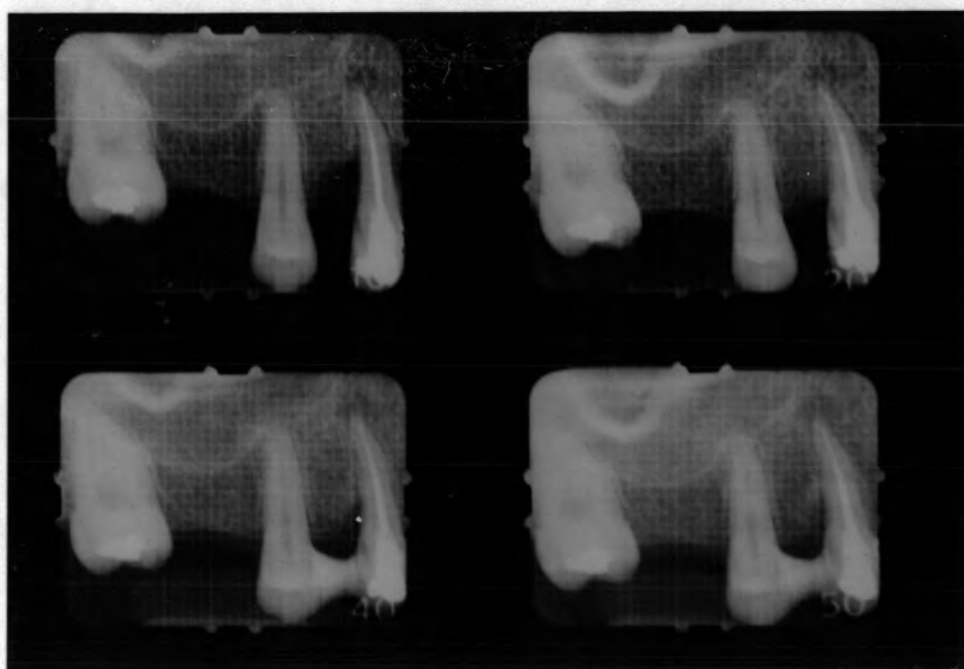
สภาพช่องความวิการของกระดูก ก่อนทำการรักษา



ภาพที่ 9 ภายหลังการทำสัลยปริทันต์ปลูกกระดูก 6 เดือน

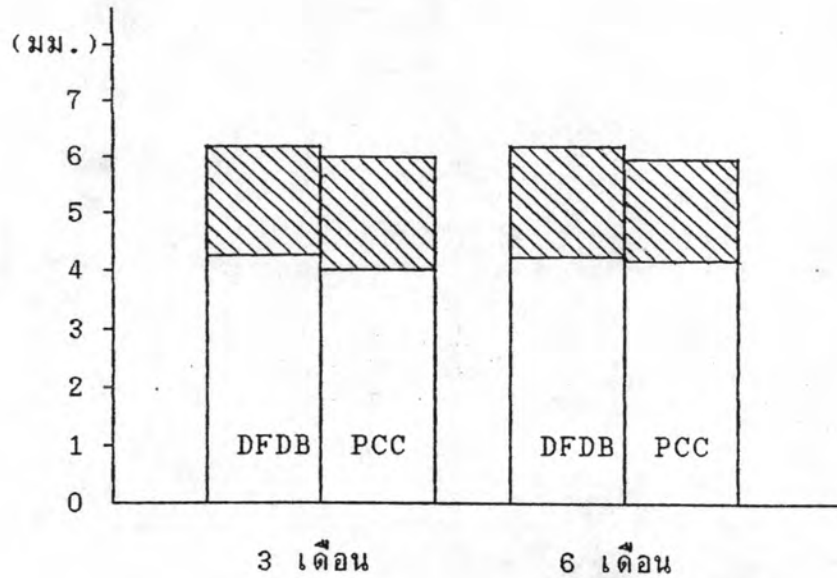



ภาพที่ 10 ภาพถ่ายรังสีฟันที่ใช้สาร ดีมีเนอรัลไลซ์ ฟริส-ดรายด์ โบน
ที่ระยะเวลาก่อนใช้, หลังใช้, 3 และ 6 เดือน (จากซ้ายไปขวา)



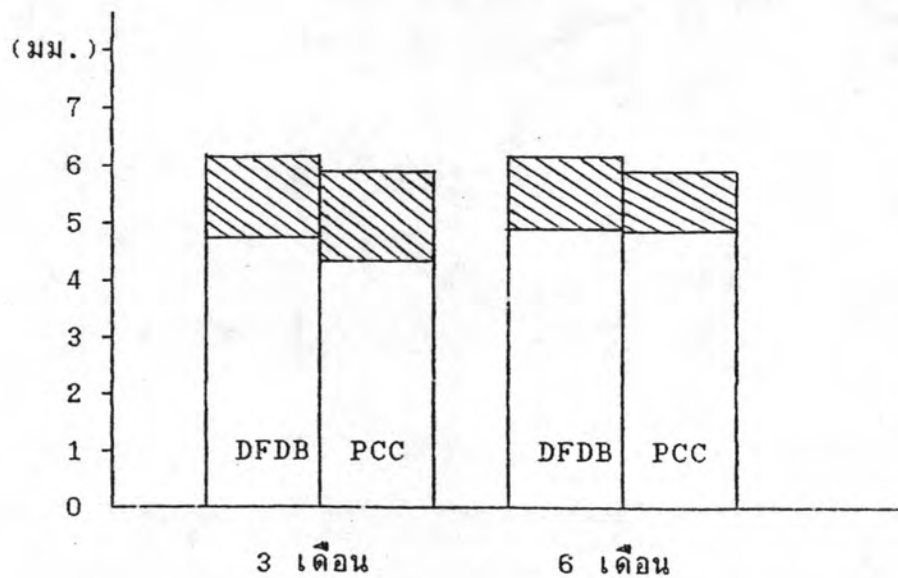
ภาพที่ 11 ภาพถ่ายรังสีฟันที่ใช้สาร พอริส แคลเซียม คาร์บอนเนต
ที่ระยะเวลาก่อนใช้, หลังใช้, 3 และ 6 เดือน (จากซ้ายไปขวา)


ภาพที่ 12 แสดงค่าเฉลี่ยระดับการลดลงของร่องลึกปริทัศน์



-  = ระดับความลึกของร่องลึกปริทัศน์ที่ลดลง
 DFDB = ดีมีเนอรัลไลซ์ ฟริส-ดรายด์ โบน
 PCC = พอร์ส แคลเซียม คาร์บอเนต

ภาพที่ 13 แสดงค่าเฉลี่ยระดับการเพิ่มการยึดเกาะของอวัยวะปริทัศน์



-  = ระดับการยึดเกาะของอวัยวะปริทัศน์ที่เพิ่มขึ้น

ตารางที่ 1 จำนวนและชนิดของซีฟันที่ใช้ในการทำวิจัย

ชนิดของฟัน	จำนวนซีฟันที่ใช้สารปลูกกระดูก	
	DFDB	PCC
ฟันกรามใหญ่บน	4	4
ฟันกรามใหญ่ล่าง	2	2
ฟันกรามน้อยบน	5	5
รวม	11	11

DFDB = ดิมิเนอรัลไลซ์ ฟรீส-ดรายด์ โบน

PCC = พอร์ส แคลเซียม คาร์บอเนต

ตารางที่ 2 ค่าเฉลี่ยระดับการร่นของขอบเหงือกจากระดับคอฟัน

ระยะเวลา (เดือน)	DFDB (มม.)	PCC (มม.)
0	0.00 \pm 0.63	0.09 \pm 0.83
3	-0.45 \pm 0.52	-0.45 \pm 0.52
6	-0.64 \pm 0.67	-0.82 \pm 0.60

ตารางที่ 3 ค่าเฉลี่ยระดับความลึกของร่องลึกปริทันต์

ชนิดของสาร ปลูกกระดูก	ระยะเวลา (เดือน)		
	0	3	6
DFDB	6.27 ± 0.65	4.36 ± 0.81*	4.36 ± 0.92*
	N.S.	N.S.	N.S.
PCC	6.09 ± 0.30	4.09 ± 1.14*	4.27 ± 0.90*

DFDB = ดีมีเนอรัลไลซ์ ฟรீส-ดราซด์ โบน

PCC = พอร์ส แคลเซียม คาร์บอเนต

* หมายถึงมีความแตกต่างอย่างมีนัยสำคัญทางสถิติ ($P < 0.01$)

N.S. หมายถึงไม่มีความแตกต่างอย่างมีนัยสำคัญทางสถิติ ($P < 0.01$)

ตารางที่ 4 ค่าเฉลี่ยระดับการยึดเกาะของอวัยวะปริทันต์

ชนิดของสาร ปลูกกระดูก	ระยะเวลา (เดือน)		
	0	3	6
DFDB	6.27 ± 1.01	4.82 ± 0.98*	5.00 ± 1.10*
	N.S.	N.S.	N.S.
PCC	6.00 ± 0.89	4.45 ± 1.57*	5.00 ± 1.26*

ตารางที่ 5 ค่าเฉลี่ยระดับการเปลี่ยนแปลงของร่องลึกปริทันต์ที่ระยะ
เวลา 3 และ 6 เดือน เมื่อเทียบกับก่อนการรักษา

ชนิดของสาร ปลูกกระดูก	ระยะเวลา (เดือน)	
	3	6
DFDB	1.91 ± 1.04 *	1.91 ± 0.83 *
	N.S.	N.S.
PCC	2.00 ± 1.00 *	1.82 ± 0.75 *

DFDB = ตีมีเนอรัลไลซ์ ฟรீส-ดรายด์ โบน

PCC = พอร์ส แคลเซียม คาร์บอเนต

* หมายถึงมีความแตกต่างอย่างมีนัยสำคัญทางสถิติ (P<0.01)

N.S. หมายถึงไม่มีความแตกต่างอย่างมีนัยสำคัญทางสถิติ (P<0.01)

ตารางที่ 6 ค่าเฉลี่ยระดับการเปลี่ยนแปลงของการยึดเกาะของอวัยวะปริทันต์
ที่ระยะเวลา 3 และ 6 เดือน เมื่อเทียบกับก่อนการรักษา

ชนิดของสาร ปลูกกระดูก	ระยะเวลา (เดือน)	
	3	6
DFDB	1.45 ± 1.13 *	1.27 ± 0.79 *
	N.S.	N.S.
PCC	1.55 ± 1.13 *	1.00 ± 1.00 *

ภาคผนวก

ตารางที่ 7 ระดับความลึกของร่องลึกปริทันต์ และระดับการยึดเกาะของอวัยวะปริทันต์ของฟันที่ใช้สารปลูกกระดูก ติมีเนอร์ไลซ์ ฟรีส-ดรายด์ โบน

อาสาสมัคร	ระดับความลึกของร่องลึกปริทันต์ (มม.)			ระดับการยึดเกาะของอวัยวะปริทันต์ (มม.)		
	0 เดือน	3 เดือน	6 เดือน	0 เดือน	3 เดือน	6 เดือน
1	6	5	5	5	4	4
2	6	4	4	6	4	4
3	8	4	5	8	4	6
4	6	3	4	6	4	5
5	6	3	3	6	4	4
6	6	5	4	7	6	5
	6	5	5	5	4	4
7	6	5	4	6	6	6
8	6	4	3	6	5	4
9	6	5	5	6	6	6
10	7	5	6	8	6	7

ตารางที่ 8 ระดับความลึกของร่องลึกปริทัศน์ และระดับการยึดเกาะของอวัยวะ
ปริทัศน์ของพื้นที่ใช้สารปลูกกระดูก พอรัส แคลเซียม คาร์บอนเนต

อาสาสมัคร	ระดับความลึกของร่องลึกปริทัศน์ (มม.)			ระดับการยึดเกาะของอวัยวะปริทัศน์ (มม.)		
	0 เดือน	3 เดือน	6 เดือน	0 เดือน	3 เดือน	6 เดือน
1	6	4	4	6	5	5
2	6	4	4	6	4	4
3	7	6	6	7	6	7
4	6	2	3	5	2	3
5	6	4	4	6	4	5
6	6	5	5	7	6	6
	6	3	4	5	2	5
7	6	5	5	7	7	7
8	6	3	3	7	4	4
9	6	4	4	5	4	4
10	6	5	5	5	5	5

ตารางที่ 9 ระดับของขอบเหงือกตำแหน่งที่ใช้สารปลูกกระดูก ติมิเนอร์ไลซ์
ฟริส-ดรายด์ โบน และ พอริส แคลเซียม คาร์บอนเนต เทียบกับ
ระดับคอฟัน

อาสาสมัคร	ระดับขอบเหงือกตำแหน่งที่ใช้DFDB (มม.)			ระดับขอบเหงือกตำแหน่งที่ใช้PCC (มม.)		
	0 เดือน	3 เดือน	6 เดือน	0 เดือน	3 เดือน	6 เดือน
1	1	1	1	0	-1	-1
2	0	0	0	0	0	0
3	0	0	-1	0	0	-1
4	0	-1	-1	1	0	0
5	0	-1	-1	0	0	-1
6	-1	-1	-1	-1	-1	-1
	1	1	1	1	1	-1
7	0	-1	-2	-1	-2	-2
8	0	-1	-1	-1	-1	-1
9	0	-1	-1	1	0	0
10	-1	-1	-1	1	0	0

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:POCKET LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:POCKET LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = 1.9091

STD. DEV. = 1.0445

STD. ERROR = .3149

N = 11 (CASES = 1 TO 11)

T = 6.0622 (D.F. = 10) GROUP 1 : DFDB 0mo

GROUP 2 : DFDB 3mo

PROB. = 6.081E-05

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:POCKET LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:POCKET LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = 1.9091

STD. DEV. = .8312

STD. ERROR = .2506

N = 11 (CASES = 1 TO 11)

T = 7.6175 (D.F. = 10) GROUP 1 : DFDB 0mo

GROUP 2 : DFDB 6mo

PROB. = 9.019E-06

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:POCKET LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:POCKET LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = .0000

STD. DEV. = .7746

STD. ERROR = .2335

N = 11 (CASES = 1 TO 11)

T = .0000 (D.F. = 10) GROUP 1 : DFDB 3mo

GROUP 2 : DFDB 6mo

PROB. = .5000

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:POCKET LABEL : PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES : 6

DIFFERENCE BETWEEN MEANS : PAIRED OBSERVATIONS

HEADER DATA FOR: B : POCKET LABEL : PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES : 6

HYPOTHESIZED DIFF. = .0000

MEAN = 2.0000

STD. DEV. = 1.0000

STD. ERROR = .3015

N = 11 (CASES = 1 TO 11)

T = 6.6332 (D.F. = 10) GROUP 1 : PCC 0mo

GROUP 2 : PCC 3mo

PROB. = 2.915E-05

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:POCKET LABEL : PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES : 6

DIFFERENCE BETWEEN MEANS : PAIRED OBSERVATIONS

HEADER DATA FOR: B:POCKET LABEL : PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = 1.8182

STD. DEV. = .7508

STD. ERROR = .2264

N = 11 (CASES = 1 TO 11)

T = 8.0322 (D.F. = 10) GROUP 1 : PCC 0mo

GROUP 2 : PCC 6mo

PROB. = 5.684E-06

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:POCKET LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS : PAIRED OBSERVATIONS

HEADER DATA FOR: B:POCKET LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = -.1818

STD. DEV. = .4045

STD. ERROR = .1220

N = 11 (CASES = 1 TO 11)

T = -1.4907 (D.F. = 10) GROUP 1: PCC 3mo

GROUP 2: PCC 6mo

PROB. = .0834

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:POCKET LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:POCKET LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = -.1818

STD. DEV. = .4045

STD. ERROR = .1220

N = 11 (CASES = 1 TO 11)

T = -1.4907 (D.F. = 10) GROUP 1 : PCC 0mo

GROUP 2 : DFDB 0mo

PROB. = .0834

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:POCKET LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:POCKET LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = -.2727

STD. DEV. = 1.1037

STD. ERROR = .3328

N = 11 (CASES = 1 TO 11)

T = -.8195 (D.F. = 10) GROUP 1 : PCC 3mo

GROUP 2 : DFDB 3mo

PROB. = .2158

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:POCKET LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:POCKET LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = -.0909

STD. DEV. = .9439

STD. ERROR = .2846

N = 11 (CASES = 1 TO 11)

T = -.3194 (D.F. = 10) GROUP 1 : PCC 6mo

GROUP 2 : DFDB 6mo

PROB. = .3780

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:ATTACH LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:ATTACH LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = 1.4545

STD. DEV. = 1.1282

STD. ERROR = .3402

N = 11 (CASES = 1 TO 11)

T = 4.2762 (D.F. = 10) GROUP 1 : DFDB 0mo

GROUP 2 : DFDB 3mo

PROB. = 8.106E-04

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:ATTACH LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:ATTACH LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = 1.2727

STD. DEV. = .7862

STD. ERROR = .2371

N = 11 (CASES = 1 TO 11)

T = 5.3688 (D.F. = 10) GROUP 1 : DFDB 0mo

GROUP 2 : DFDB 6mo

PROB. = 1.575E-04

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:ATTACH LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:ATTACH LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = -.1818

STD. DEV. = .8739

STD. ERROR = .2635

N = 11 (CASES = 1 TO 11)

T = -.6901 (D.F. = 10) GROUP 1 : DFDB 3mo

GROUP 2 : DFDB 6mo

PROB. = .2529

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:ATTACH LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:ATTACH LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = 1.5455

STD. DEV. = 1.1282

STD. ERROR = .3402

N = 11 (CASES = 1 TO 11)

T = 4.5434 (D.F. = 10) GROUP 1 : PCC 0mo

GROUP 2 : PCC 3mo

PROB. = 5.345E-04

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:ATTACH LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:ATTACH LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = 1.0000

STD. DEV. = 1.0000

STD. ERROR = .3015

N = 11 (CASES = 1 TO 11)

T = 3.3166 (D.F. = 10) GROUP 1 : PCC 0mo

GROUP 2 : PCC 6mo

PROB. = 3.896E-03

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:ATTACH LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:ATTACH LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = -.5455

STD. DEV. = .9342

STD. ERROR = .2817

N = 11 (CASES = 1 TO 11)

T = -1.9365 (D.F. = 10) GROUP 1 : PCC 3mo

GROUP 2 : PCC 6mo

PROB. = .0408

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:ATTACH LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:ATTACH LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = .2727

STD. DEV. = 1.1909

STD. ERROR = .3591

N = 11 (CASES = 1 TO 11)

T = -.7596 (D.F. = 10) GROUP 1 : PCC 0mo

GROUP 2 : DFDB 0mo

PROB. = .2325

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:ATTACH LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:ATTACH LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = -.3636

STD. DEV. = 1.3618

STD. ERROR = .4106

N = 11 (CASES = 1 TO 11)

T = -.8856 (D.F. = 10) GROUP 1 : PCC 3mo

GROUP 2 : DFDB 3mo

PROB. = .1983

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:ATTACH LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:ATTACH LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = .0000

STD. DEV. = 1.3416

STD. ERROR = .4045

N = 11 (CASES = 1 TO 11)

T = .0000 (D.F. = 10) GROUP 1 : PCC 6mo

GROUP 2 : DFDB 6mo

PROB. = .5000

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:RECESS LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:RECESS LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = .4545

STD. DEV. = .5222

STD. ERROR = .1575

N = 11 (CASES = 1 TO 11)

T = 2.8868 (D.F. = 10) GROUP 1 : DFDB 0mo

GROUP 2 : DFDB 3mo

PROB. = 8.099E-03

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:RECESS LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:RECESS LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = .6364

STD. DEV. = .6742

STD. ERROR = .2033

N = 11 (CASES = 1 TO 11)

T = 3.1305 (D.F. = 10) GROUP 1 : DFDB 0mo

GROUP 2 : DFDB 6mo

PROB. = 5.341E-03

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:RECESS LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:RECESS LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = .1818

STD. DEV. = .4045

STD. ERROR = .1220

N = 11 (CASES = 1 TO 11)

T = 1.4907 (D.F. = 10) GROUP 1 : DFDB 3mo

GROUP 2 : DFDB 6mo

PROB. = 0.0834

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:RECESS LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:RECESS LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = .4545

STD. DEV. = .5222

STD. ERROR = .1575

N = 11 (CASES = 1 TO 11)

T = 2.8868 (D.F. = 10) GROUP 1 : PCC 0mo

GROUP 2 : PCC 3mo

PROB. = 8.099E-03

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:RECESS LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:RECESS LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = .8182

STD. DEV. = .6030

STD. ERROR = .1818

N = 11 (CASES = 1 TO 11)

T = 4.5000 (D.F. = 10) GROUP 1 : PCC 0mo

GROUP 2 : PCC 6mo

PROB. = 5.716E-04

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:RECESS LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:RECESS LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = .3636

STD. DEV. = .6742

STD. ERROR = .2033

N = 11 (CASES = 1 TO 11)

T = 1.7889 (D.F. = 10) GROUP 1 : PCC 3mo

GROUP 2 : PCC 6mo

PROB. = .0520

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:RECESS LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:RECESS LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = .0909

STD. DEV. = .9439

STD. ERROR = .2846

N = 11 (CASES = 1 TO 11)

T = .3194 (D.F. = 10) GROUP 1 : PCC 0mo

GROUP 2 : DFDB 0mo

PROB. = .3780

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:RECESS LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:RECESS LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = .0909

STD. DEV. = .9439

STD. ERROR = .2846

N = 11 (CASES = 1 TO 11)

T = .3194 (D.F. = 10) GROUP 1 : PCC 3mo

GROUP 2 : DFDB 3mo

PROB. = .3780

-----HYPOTHESIS TESTS FOR MEANS-----

HEADER DATA FOR: B:RECESS LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

DIFFERENCE BETWEEN MEANS: PAIRED OBSERVATIONS

HEADER DATA FOR: B:RECESS LABEL: PCC & DFDB

NUMBER OF CASES: 11 NUMBER OF VARIABLES: 6

HYPOTHESIZED DIFF. = .0000

MEAN = -.0909

STD. DEV. = 1.0445

STD. ERROR = .3149

N = 11 (CASES = 1 TO 11)

T = -.2887 (D.F. = 10) GROUP 1 : PCC 6mo

GROUP 2 : DFDB 6mo

PROB. = .3894

ประวัติผู้เขียน

นายสุขจิตต์ ญาณะจारी เกิดวันที่ 16 ธันวาคม พ.ศ. 2492 ที่อำเภอสัมพันธวงศ์ กรุงเทพมหานคร สำเร็จการศึกษาปริญญาตรีทันตแพทยศาสตรบัณฑิต คณะทันตแพทยศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย ในปีการศึกษา 2519 และเข้าศึกษาต่อในหลักสูตร วิทยาศาสตร์มหาบัณฑิต สาขาปริทันตศาสตร์ ที่จุฬาลงกรณ์มหาวิทยาลัย เมื่อพ.ศ. 2534 ปัจจุบันรับราชการที่ศูนย์บริการสาธารณสุข 34 สำนักอนามัย กรุงเทพมหานคร

