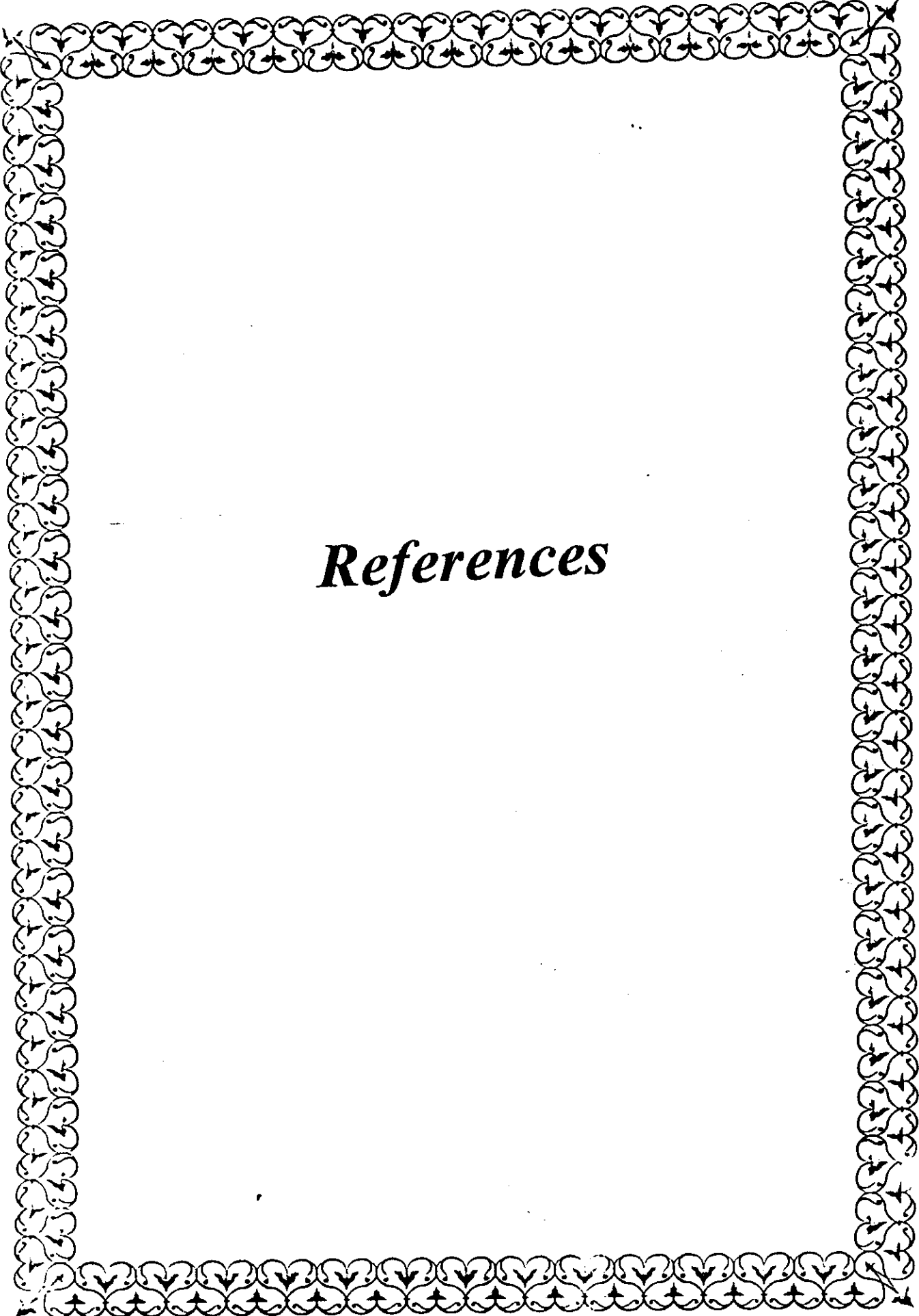




References

REFERENCES

****A**

Ahlberg . A :

Haematogenous infection in T.H.R. Clin. Orth. 137 : 69, 1978 .

Allwood W.F.G.M, (1992) :

The impact of prosth. design on revision hip replacement .

Recent advances in Orthop., 1992 .

Amstutz H.C. , and Markolf K.L. :

Design features in T.H.R. The hip : Proceedings of the second open scientific meeting of hip society, Mosby Co, 111, 1974 .

Anderson . J.E. :

Grant's atlas of anatomy, 8th . ed. , international student edition, section : 4, Williams and Wilkins (1983) .

Anderson P.K., Christian G., and Lund. F. :

Heterotopic bone formation after non cemented T.H.A Clin. Orth., 252 : 156 , 1990 .

Andrew . T.A., Flanagan J.P., and Bombelli R. :

The iso-elastic non cemented T.H.A. , preliminary experience with 400 cases . Clin. Orth. Vol. 206, 1986 .

Anson B.J. :

Regional and applied anatomy, 5th ed. chapter 34, 1971 .

Azeem H.A. :

Acetabular fractures . The Egyptian Orthop Journal Vol. 25, No. 3 - 4 , 1990 .

****B**

Black J. :

Metallic ion release and its relationship to oncogenesis . The hip, proceedings of thirteenth open scientific meeting of hip society . St. Louis, C.V. Mosby P : 199, 1985 .

Black J., Sherk. H., and Bonino J. et al., :

Metallosis associated with a stable titanium - alloy femoral component in T.H.A., J. bone Joint Surg. [Am] 1990, 72 - A : 126 .

Bobyn J.D., Glassman A.H., and Miller J.E. et al:

Producing and avoiding stress shielding, laboratory and Clinical observations of non cemented T.H.A. Clin. Orth., 274 : 79, 1992 .

Bombelli R., Gerundini M., and Aronson J. et al., :

Early results of R.M iso-elastic cementless T.H.A ; 300 consecutive cases with two year follow-up , The hip, Vol. 12, the C.V Mosby Company, 1984 .

Bombelli R, Santore R.F, and Poss. R et al:

Mechanics of normal and osteoarthritic hip . Clin. Orth, 182 : 69 , 1984 .

Bombelli R. :

R - M iso-elastic cementless T.H.A., Clinical and radiological assessment of the first 700 cases . A letter from Mathys Ltd, Bettlach, 1987 .

Bombelli R. :

Experience in R - M hip prosthesis and cup by
Pr. R. Bombelli until 1991 . A letter from department
of orthopaedics and traumatology . Hospital of Busto
Arizico, Italy, May 1991 .

Bourne R.B., Rorabeck C.H., and Burkart B.C. et al:

Plasma spray coating to titanium alloy hip replacement.
Clin. Orth., 298 : 37, 1994 .

****C**

Callaghan, Griffin W.L., and Bradley G.W. et al:

Results of revision for mechanical failure after cemented
T.H.R. from 1979 to 1982 . J. bone Joint Surg., 67 - A : 1074,
1985 .

Callaghan J.J., Dysart S., and Savory C.G. et al :

The uncemented porous - coated anatomic total hip prosthesis ;
two years results of a prospective consecutive series J. Bone
Joint. Surg. 70 - A : 337 , 1988 .

Callaghan J.J. :

Total hip arthroplasty . Clin. Orth., 276 : 34, 1992 .

Callaghan J.J. :

T.H.A., Clinical perspective . Clin. Orth., 276 : 33 , 1992 .

Carlsson A.S., and Gentz C.F. :

Mechanical loosening of femoral head prosthesis in the
Charnley T.H.A. . Clin. Orth., 147 : 262 , 1980 .

Carlsson L., Rosthund T., and Alberktssen T. et al:

Osteo-integration of titanium implants . Acta. Orth.
Scand. P. 57, 1986 .

Chambers T.J. :

The cellular basis of bone resorption . Clin. Orth.
151 : 283 , 1988 .

Charnley J. :

Acrylic cement. in orthop Surg., Baltimore 1970,
The Williams Wilkins Co.

Charnley J. :

Biomechanical considerations in T.H.R. design . The
Hip : proceedings of the first open scientific meeting
of hip society . St. Louis, C.V. Mosby co, P : 101 , 1973 .

Charnley J. :

Wear of high molecular weigh polyethylenc in T.H.R.
International publication No. 49, Centre for hip. Surg.,
Wringtington hospital, England, 1974 .

Charnley J. :

Low friction arthroplasty of the hip ; Theory and
Practice . Berlin, Springer, 1979 .

Chwirut D.J. :

Long-term compressive creep deformation and damage
in acrylic cement . J. biomed Mater research, 18 : 25, 1984 .

Clemente P.J.P :

Our experience with R-M cups . A letter recieved in 1989 from
department of traumatology and Orthopaedics, Hospital Dela
princessa, Madrib, spain .

Cohen and Wuiff :

Clinical failure caused by corrosion of a Vitallium plate .
Journal bone Joint Surg., 54 - A : 617, 1972 .

Collis D.K. :

Cemented T.H.R. in patients who are less than
fifty years old . J. bone Joint Surg., 66 - A : 353, 1984 .

Cook S.D. :

Studies of retrieved human porous implants . Symposium
cement versus cementless T.H.R. is the Wrong question ?
Boston, Sep. 28, 1988 .

Crowninshield R.D., Brand R.A., Johnston R.C. et al :

An analysis of collar function and the use of titanium in
femoral prosthesis clin. orth., 158 : 270 , 1981 .

Crowninshield R.D., Pedersen D.R., and Jhonston R. :

Analytic support for acetabular component metal backing
Orth. Trans., 7 : 221 , 1983 .

Coventry M.B. :

Lessons learned in thirty years of T.H.A. Clin. Orth., 274 : 22,
1992 .

****D**

Dandy D.J., and Theodorou B.C. :

Management of local complications of T.H.R. by the McKee-Farrar technique . J.bone Jt Surg. 57 - B : 30, 1975 .

Davy D.T., Kotzar G.M. and Brown R.H. et al:

Telemetric force measurements across the hip after T.H.R.
J.bone Joint . Surg., 70 - A : 45, 1989 .

Dias J.J., Johnson G.V., and Stoyle T.F. et al :

Pre-operative evaluation of uncemented T.H.A. : the role of computerized Tomography . J.bone Joint Surg. 17 - B : 43, 1989 .

Dutkowsky J.P. :

Campbell's operative orthopaedics, chapter 41 , 8th edition,
Mosby - year book, 1992 .

****E**

Eftekhar N.S. , (1978) :

Principles of T.H.R., part one : Basic Science, chapter 3 :
Biomechanics and biomaterials . The C.V. Mosby Co. Saint.
Louis., 1978 .

Engh C.A. :

Hip arthroplasty with a moore prosthesis with porons
Coating . A five year study . Clin. Orth., 116 : 52, 1983 .

Engl C.A., Bobyn J.D., and Glassman A. et al :

Porous coated hip replacement . The factors governing bone ingrowth, stress shielding, and Clinical results . J.bone Joint. Surg., 64 - B : 45, 1987 .

Engl C.A. , Glassman A.H., and Griffin W.L. et al:

Results of cementless Revision for failed cemented T.H.R. . Clin. Orth., 235 : 91 , 1988 .

Engl C.A., and Bobyn J.D. :

Influence of stem size and extent of porous coating on femoral bone resorption after primary cementless T.H.R. Clin. Orth., Vol. 231, 1988 .

Engl C.A., and Massin P. :

Cementless T.H.R. using anatomic medullary locking Stem, Clin. Orth., 249 : 142 , 1989 .

Eskola A., Santavirta S., and Hoikka V. et al., :

Cementless T.H.R. for old T.B. of the hip .J.bone Joint Surg. [Br] , 1988, 70 - B : 603 .

Eva Mattson . R.P.T., Brostrom L. and Dag. L. et al:

Walking efficiency after cemented and non cemented T.H.R. . Clin. Orth., 254 : 170 , 1990 .

****F**

Fackler C.M. :

Dislocation in Total Hip Arthroplasty . Clin. Orth, 151 : 169,
1980 .

Fernandez F., and Vazquez :

The aging of PMMA bone cement . Acta Orth. Belg, 49 :512,
1983 .

Fitzgerald R.H., Wrindley G.W., and Kavanagh B.F. :

Uncemented T.H.R. , intra-operative femoral practures .
Clin. Orth. 235 : 61, 1988 .

Frankel V.H. :

Biomechanics of the hip, Surgery of hip Joint Edited bt R.G.
Tronzo . Philadelphia, Lea & Febiger, 1973 . P ; 105 .

Freeman M.A.R., Bradley G.W., and Revell P.A. et al :

Observations upon the interfuce between bone and PMMA
J.bone Joint Surgy., 64 - B , 1982 .

****G**

Galante J. and Jacobs J. :

Clinical performance of ingrowth surfaces . Clin. orthop
276 : 41 , 1992 .

Goldring S.R. , Schiller A.L., and Harris W.H. :

The synovial-like membrane at the bone-cement interface
in loose T.H.R. and its proposed role in bone lysis .
J.bone joint Surg. [Am] 1983, 65 - A : 575 .

Gustilo R.B. and Pasternak H.S. :

Revision T,H,R, with titanium ingrowth prosthesis
and bone grafting for failed cemented femoral component
loosening . Clin. Orth. 235 : 111, 1988 .

****H**

Hanssen A.D. :

The hip anatomy and Surgical approaches . Ed.Bernard
F.Morrrey in joint replacement arthroplasty 1st. edition , 1991 .

Harkess J.W. :

Arthroplasty of hip, chapter 16 in crenshaw A.H., Campbell
Operative Orthop, 8th ed. A.H. Crenshaw, 1992 .

Harris W.H. :

T.H.R. for failed endoprostheses and cup arthroplasty . In
American Academy of Orthop Surg., Vol 23, St Louis Mosby
Co., 1974 .

Harris W.H., Scholler J.M., and Scott R. et al:

Extensive localised bone resorption in the femur following
T.H.R. J.bone Joint. Surg. [Am] , 1976 , 58 - A : 612 .

Harris W.H., Mc Carthy J.C., and O'Neill D.A. et al :

Femoral component loosening using contemporary techniques
of femoral component fixation . J.bone Joint. Surg. 64 - A :
1063, 1982 .

Harris W.H. :

Advances in T.H.R. , the metal-backed acetabular component
Clin. Orth. 1984, 183 : 4

Harris W.H. , and Mc Gann W.A. :

Loosening of femoral component after use of medullary plug
cementing technique . A Follow-up with minimum five years .
J.bone Joint. Surg., 68 - A : 1064, 1986 .

Harris and Maloney :

Hybrid T.H.R. . Clin. Orth. , 249 : 21 , 1989 .

Harris W.H. :

Will stress shielding limit the longevity of cemented femoral
components of T.H.R. ? . Clin. Orth., Vol. 274, 1992 .

Hasselbach C.H.V. and Bombelli R. :

The iso-elastic R.M. hip endoprosthesis . Op-Journal,
Vol. 6, No. 2, Sep. 1990 .

Hedley A.K., Gruen T.A., and Borden L.S. et al:

Two year follow-up of the P.C.A. noncemented T.H.R., The
hip , C.V. Mosby Co., 1987 . PP : 225 .

Herman J.H., Sowder W.G., and Appel A.M. et al:

Cement implicated in IL-1, T.N.F., and P.G.E2 production .
Rheumatology news international, 16 :3 , 1988 .

Hernandez J.R., Keating E.M., and Faris P.M. et al:

Polyethylene wear in uncemented acetabular component .

J.bone joint Surg. , Vol. 76 - B, No.2, 1994 .

Hierton C., Blomgren G., and Lindgren U. et al., :

Factors associated with ectopic bone formation in cemented

T.H.R. . Acta. Orth. Scand., 54 : 698, 1983 .

Huiskes R. , Weinans H., and Rietbergen B.V. et al:

The relationship between stress shielding and bone resorption
around total hip stems and the effects of flexible materials .

Clin. Orth. , Vol. 274, 1992 .

Hungerford D.S. and Jones L.C. :

Rationale of cementless revision of cemented arthroplasty
failures . Clin. Orth., 235 : 12 , 1988 .

Huo M.H., Salvati E.A., Lieberman J.R. et al:

Metallic debris in femoral endosteolysis in failed cemented

T.H.A. . Clin. Orth., 276 : 157 , 1992 .

****J**

Jasty M.J. , Harris W.H., and Scholler J.M. :

Localised osteolysis in stable, non septic T.H.R. J.bone Joint.

Surg. 68 - A : 912 , July , 1986 .

Jasty M. , Maloney W., and Harris W.H. et al:

Aetiology of osteolysis around porous coated cementless

T.H.R. . Clin. Orth., 308 : 111 , 1994 .

Johnston R.C. , and Smidt G.L. :

Hip motion measurements for selected activities of daily living . Clin. Orth. 72 : 205 , 1970 .

Jones L.C., and Hungerford D.S. :

Cement disease . Clin. Orth. Vol. 225, Dec. 1987 .

****K**

Kavanagh B.F. and Fitzgerald R.H. :

Intra-operative femoral fractures . Chapter 66 in : joint replacement arthroplasty . Churchill living stone , 1991 .

Kerr R., Sartori D.J., and Pineda C. et al:

Computerized tomography of proximal femoral trabecular patterns . J. Orthop Res., Vol. 4 , No. 1 , 1986 .

Kim Y.H. and Such J.S. :

Low incidence of D.V.T. after cementless T.H.R. J.bone Joint Surg. 70 - A : 878 , 1988 .

Kowing K.S.C. :

The biomechanical role of collar of femoral component of T.H.R. . J.bone Jont . Surg., 72 - B, 1990 .

Krause W.R. , Rubin C.T. , and Wixson R.L. et al:

Strength of cement-bone interface . Clin. Orth. 163 : 290 , 1982 .

****L**

Liang P.G. :

Compatibility of biomaterials . Orth. Clin. North. American,
4 : 249 , 1973 .

Langkamer V.G., Case C.P., and Taylor A. et al:

Systemic distribution of wear debris after hip replacement .
J.bone Joint Surg. [Br] , 74 -B : 831, 1992 .

Lemon J.E. :

Hydroxy-apatite coatings . Clin. Orth., 235 : 220 , 1988 .

Lewinnk G.E. , Lewis J.L., and Tarr R. et al:

Dislocations after T.H.R. . J.bone joint . Surg. 60 - A : 1978 .

Linder L. :

Tissue reaction to methacrylate monomer . Acta Orth. Scand ,
47 : 3, 1976 .

Livermore Y., Ilstrup. D., and Morrey B. et al:

Effect of femoral head size on wear of the polyethylene
acetabular component . J.bone Joint surg. 72 - A , 1990 .

Lord G. and Bance L.P. :

The madreporic cementless T.H.R. . New experimental data
and a Seven years clinical follow-up study . Clin. Orth., 176 :
67 , 1983 .

Lord G. , Marotte J.H. , and Blanchard J.P. et al:

Cementless revisions of failed aseptic cemented and cement-
less T.H.A. : 284 cases . Clin. Orth., 235 : 67 , 1988 .

****M**

Mango Enrico :

Principles of orthopaedic practice, Roger .Dee .Chapter 71 ,
section C., Ischaemic necrosis of femoral head . Mc Graw-Hill
book company , 1989 .

Maloney W.J. , Nelson C.L. , and Hollis J.M. et al:

Micromotion of cementless hemispherical acetabular
component fixed with screws . Trans-society for biomaterials
13 : 173 , 1990 .

Margareta and Frankel , 1980 :

Basic biomechanics of skeletal system . Chapter 5,LEA and
FRIBIGER , philadilphia , 1980 .

Mathys R., and Mathys R. Jr. :

Use of polymers for endoprosthesis components . In Hartman
R., Berlin - Heidelberg, New York , Springer - Verlag , 1974 .

Mazabraud A., Florent J., and Laurent M. :

A case of epidermoid carcinoma developing from contact with
an articular hip . prosthesis -Bull Cancer 1989, 76 : 573 .

Mc Collum D.E. , and Gray W. :

Dislocation after T.H.R. . Clin. Orth., No. 261, 1990 .

Mc Donald W.C. , Morscher E., and Masar L. et al:

Cementless uncoated polyethylene acetabular components in
T.H.R. . Review of 5 - 10 years results . J.bone Joint Surg. 72 -
B : 423 , 1990 .

Mc Minn R.M.H. :

Last's anatomy ; 9th. edition ; Chapter 3 ; the gluteal region and hip joint , 1994 .

Miller J.E. and Kelabay L.C. :

Bone ingrowth ,disuse osteoporosis . Orth. Trans, 5 : 380,1981

M Joberg B. :

Loosening of cemented hip prosthesis , the importance of heat injury . Acta orth. Secand 1986 , 57 : supp 221 .

Moreland J.R., Gruen T.A. , and Mai L. et al:

Aseptic loosening of T.H.R. : incidence and significance .

The hip : Proceedings of 8th. open scientific meeting of hip society . St. Louis , C.V. Mosby Co., 1980 .

Morrey B.F., LLstrup D., and Lindahl J. :

Size of femoral head and acetabular revision in T.H.R. , J.bone Joint Surg. 71 - A , 1989 .

Morrey B.F. :

Dislocation . Joint replacement Arthroplasty : Chapter 64 , Churchill Living stone , 1991 .

Morscher E.W. , Dick W., and Kernen V. et al:

Cementless fixation of polyethylene acetabular component in T.H.R> . Arch. Orthop. Traum. Surg., 99 : 223 , 1982 .

Morscher E.W. :

Cementless T.H.R. . Clin. Orth., 181 : 76 , 1983 .

Morscher E.W., and Dick W. :

Cementless fixation of iso-elastic hip endoprosth .
manufactured from plastic materials . Clin. Orth. Vol. 176 ,
1983 .

Morscher E. :

Current status of acetabular fixation in primary T.H.R. Clin.
Orth. , 274 : 172 , 1992 .

Moskal J.T., Shaffrey C.I, and Ripley L.P. . et al:

Prospective analysis of uncemented and Hybrid primary
porous coated anatomic T.H.R. . Clin. Orth., 304 : 139 , 1994 .

Mulloroy R.D. :

Effect of improved cementing techniques on component
loosening in T.H.R. . J.bone Joint . Surg., 72 - B : 575 , 1990 .

Mulloroy and Harris :

Effect of improved cementing techniques on component
Loosening in T.H.R. . An eleven year radiographic review .
J.bone joint Surg., 72 - B : 757 , 1990 .

Murray M.P. :

Walking patterns in healthy old men.J. Gerontol , 24 : 169 ,
1969 .

****N**

Northmore - Ball, Gruber J.G.R., and Farreira C.E.V. :

Sequential haematogenous infection of bilateral Cementless
T.H.R. . J.bone Joint. Surg. [Br] , 75-B : 22,1993 .

****O**

Osborn J.F. :

The biologic behaviour of the hydroxy apatite Ceramic coating on a titanium stem of the hip . prosthesis . The first histological evaluation of human autopsy specimens, Biomed . Tech. 32, 1987 .

OSler - W. :

Radiological studies . Principles of T.H.A. , Eftekhar N.S. , C.V. mosby Co., 1978 .

****P**

Pellici P.M. , Wilson P.D. , and Ranawat C.S. et al :

Long term results of revision T.H.R. , a follow-up report .
J.bone Joint. Surg. , 67-A : 513 , 1985 .

Phillips T.W. and Messeih S.S. :

Cementless hip replacement for arthritis, problems with a smooth surface moore stem , Bone and joint Surg. [Br] , 70 - B : 750 , 1988 .

Poss R., Brick G.W., Roberts R.W. et al:

Effects of modern cementing techniques on the longevity of T.H.R. . Orthop. Clin. of North. Amer. Vol. 19, No. 3, 1988

****R**

Recalbuto S. :

Cementless iso-elastic R.M. cups application in T.H.R. Lecture at the thirteen national Congress of Italian Society for Surgical research . Siena , Italy , Dec. 1987 .

Reis N.D. , Besser M.I.B. , and Antman N. et al :

R.M iso-elastic cementless primary T.H.R. , the first Fifty cases after five years . A'letter data from Rambam medical centre, faculty of medicine , Haifa ,Palastine, 1992 .

Ritter M.A. , Gioe T.J. , and Sieber J.M. et al:

Systemic effects of P.M.M.A. . Acta. Orth., 55 :441, 1984 .

Rockwood P.R. :

Heterotopic ossification following cementless T.H.R.

The Journal of arthroplasty . Vol. 5, Suppl., Oct., 1990 .

Roger Dee, William T.S., and Enrico M. et al:

Arthroplasty and arthrodesis of the hip, chapter 71 , Section A, PP 1331 in Principles of Orthopaedic Practice . Mc Graw- Hill book Co., 1989 .

Rorabeck C.H., Bourne P.B. and Wong C. et al:

Double blind study of 250 cases comparing cemented with cementless T.H.R. . Clin. Orth. 298 : 156 , 1994 .

Rosendahl S., Christoffer J.K., and Norgaard M. et al:

Para-articular ossification following hip replacement .

Acta Orth. Scand , 48 : 400 , 1977 .

Rose R.M. , Sieber J.M. , and Reilly D.T. et al:

True wear rate of U.HWPE in T.H.R. J.bone joint Surg., 62 -

A : 534 , 1980 .

Rothman R.H. and Cohn J.C. :

Cemented versus cementless T.H.R. . Clin. Orth. , 254 : 153 ,

1990 .

Russotti G.M., Coventry M.B., and Stauffer R.N. et al:

Cemented T.H.R. with contemporary techniques .Clin. Orth.

235 : 141 , 1988 .

Rydell N. :

Forces in the hip joint , part II , intra-vital measurements Ed.

R.M. Kenedi Oxford and Edinburgh , Pergamon Press, 1965 ,

PP : 351 .

****S**

Salvati E.A. , Betts F., and Doty S.B. et al:

Particulate metallic debris in cemented T.H.R. .

Clin. Orth. , 293 : 160 , 1993 .

Schmalzried , Rosenbaum D.H., and Meding J.B. et al:

Mechanism of loosening of cemented acetabular

component in T.H.R. . Clin. Orth. 274 : 60- 1992 .

Stauffer R.N. :

Ten year following-up study of T.H.R. > J.bone Joint. Surg.
64 - A : 983 , 1982 .

Stinchfield F.E. :

Overview of T.H.R. . In : Surgery of musculoskeletal system .
Ed. C. Mc Collister Evarts , 1990 .

Sund G., and Rosenquist J. :

Morphological changes in bone following intra medullary
implantation of P.M.M.A. . Acta. Orth. Scand, 54 : 148 , 1983.

Sutherland C.J. :

Ten year follow-up study of 100 consecutive Muller-Curved
stem T.H.R. . J.bone Joint. Surg., 64 - A : 970, 1982 .

Svensson O., Reinholt F.B., and Blomgren G. et al:

Formation of a fulminant soft tissue pseudotumour after
uncemented hip arthroplasty . J.bone Joint. Surg. [Am] 1988 ,
70 - B : 1238 .

Swayze O. , Nasser S., and Robetson J.R. et al :

Deep Venous thrombosis in T.H.R. . In the orth. Clin. of North
American , Vol. 23 No. 2, 1992 .

****T**

Tanzer M. , Maloney W.J., and Harris W.H. et al:

Progression of femoral cortical osteolysis in association
with T.H.R. without cement. J.bone Joint. Surg. , Vol. 74 - A,
No. 3, March 1992 .

Thomas B.J. :

Heterotopic bone formation after T.H.R. . In : Orth. Clin. of
North America , Vol. 23 , No. 2 , 1992 .

Tooms R.E. and Harkess J.W. :

Arthroplasty of Hip : introduction and overview , chapter
14 in crenshaw A.H., campbell operative Orth. 8th .
edition A.H. crenshaw 1992 .

****U**

Uchida S., Yoshino S., and Kudo H. et al:

Side-effects of prostherials on the human body . Int. Orth.,
1980 , 3 : 285 .

****V**

Vincent D., Taylor A., and Pearse M. et al:

Collarless cobalt-chrome femoral component in uncemented
T.H.R. J.bone Joint Surg., 74 - B , No. 6 PP : 814 , 1992 .

****W**

Walker P.S. and Robertson D.D. :

Design and Fabrication of cementless hip stems .
Clin. Orth., 235 : 25 , 1988 .

White S.H. :

Fate of cemented T.H.R. in young patients . Clin .
Orth. , 231 : 29 , 1988 .

Whiteside L.A. , Rozing P.M., willems W.J. et al:

Fixation of Modular total hip femoral components in cementless T.H.R. . Clin. Orth., 298 : 184 , 1994 .

Wilde A.H. , and Green Wald A.S. :

Shear strength of seif-curing acrylic cement. Clin. Orth. 106 : 126 , 1975 .

Willert H.G. and Semlitsch M. :

Reactions of the articular capsule to wear Products of artificial joint prostheses . Journal biomed Mater. Res, 11 : 157 , 1977 .

Willert H.G., Bertram H., and Buchorn G.H. et al :

Osteolysis in allo-arthroplasty of hip : The role of bone cement fragmentation . Clin. Orth. , 258 : 108 , 1990 .

William P.L. and Dyson M. 1992 :

Gray's anatomy , 37 th ed., hip joint . Churchill Livingstone , 1992 .

Witt J.D. , and Swann M. :

Metal wear and tissue response in failed titanium alloy T.H.R. . J.bone Joint. Surg. [Br] , 73 - B : 559 , 1991 .

* * * * *