

REFERENCES

- Adam, J.; Mariotti, B.A.; Ashish and Diwan, D. (2002):** Current concepts in anterior surgery for thoracolumbar trauma. *Orthop Clinics N. Am.*, 33:304-421.
- Aebi, M.; Etter, C.; Kehl, and T. Tahlgott, J. (1988):** The internal skeletal fixation system. A new treatment of thoracolumbar fractures and other spinal disorders. *Clin. Orthop.*, 227:30-34.
- Ahn, J.H. and Sullivan, R. (1988):** Medical and rehabilitation management in spinal cord trauma. In Goodgold, J., Ed.: *Rehabilitation Medicine*. St. Louis, C.v. Mosby, Chapter 10.
- Alejandro Reyes; Luis, M.; Rosales Victor, and Miramonles, P. (2002):** Treatment of thoracolumbar burst fracture by vertebral shortening. *Eur. Spine. J.*, 11:8-12.
- Alexander, R.; Vaccaro Richard, S.; Nachwalter Gregg, and R. Klein, (2001):** The Significance of Thoracolumbar Spinal Canal Size in Spinal Cord Injury Patients. *Spine*, 26: 371-376.
- Allen, R.L. Perot, H.L. and Gudeman, S.K. (1985):** Evaluation of acute nonpenetrating cervical spinal cord injuries with CT metrizamide myelography. *J. Neurosurg.*, 63:510.
- American Academy of Orthopaedic Surgeons (1987):** Emergency care and Transportation of the sick and Injured Menashas. Wisc. George, Banta.
- American College of Surgeons (1984):** Advanced Trauma life support Manual. Chicago, American College of Surgeons.
- American College of Surgeons (1989):** Advanced life support course. Chicago, American College of Surgeons.
- American Spinal Injury Association (1992):** Standards for Neurological and Functional Classification of Spinal Cord Injury. Chicago, American Spinal Injury Association.
- Angtuaco, E.J. and Binet, E.F. (1984):** Radiology of thoracic and lumbar fractures. *Clin. Orthop.*, 189:43.

- Asher, M.A. and Jacobs, R.R. (1984):** Thoracolumbar spine trauma. Spine., 105: 1147.
- Asher, M.A.; Strippgen W.E. and Heining, C.F. (1992):** Isola spinal implant system: Principles, design, and applications. Spinal Instrumentation. Baltimore, Williams & Wilkins, 325-351.
- Ashman, R.; Birck, J.; Bone, L.; Corn, J.; Herring, J. Johnston, C.; Ritterbush, J. and Roah, J. (1988):** Mechanical testing of spine instrumentation. Clin. Orthop., 227:113-117.
- Ashman, R.B. and Biorch, J.G. (1988):** Mechancial testing of spinal instrumentation. Clin. Orth.,2:107:113.
- Ashman, R.B.; Herring, J.A. and Johnston, C.E. (1993):** History and development of the TSRH system. TSRH Universal Spinal Instrumentation. Dallas, Hundley & Associates, 1-7.
- Barth Green Athy, L.; Green R.N. and Johnklose, K. (1983):** Kinetic therapy for spinal cord injury. Spine, 3: 722-728.
- Bastian, L.; Knop, C.; Lange, U. and Blauth, M. (1999):** Transpedlikulare Implantation von Schrauben im bereich der thorakolumbalen Wirbelsaule- Ergebnisse einer Umfrage zur Tecnik sowie Art. Und Haufigkeit von komplikationen. Orthopade, 28:693-702.
- Beale, S.M. Pathria, M.N. and Masaryk, T.J. (1988):** Magnetic resonance imaging of spinal trauma. Top Magn. Reson. Imaging, 1:53.
- Bedbroock, G.M. (1982):** Injuries of the spine with paraplegia complete or incomplete. Wilson, J.N. and Watson Jones: fracture and joint injuires. Sixth ed. Edinburgh. 27: 827-852.
- Been, H.D. and G.J. Bouma (1999):** Comparison of two types of surgery for thoracolumbar Brust fractures. Combined anterior and posterior stabilization vs. Posterior instrumentation Only. Acta Neurochir, 141:349-357.

- Beisse, R.; Potulski, M.; Temme, C. and Buhren, V. (1998):** Das endoskopisch kontrollierte Zwerchfellspitting. Ein minimal-invasive Zugang zur ventralen versorgung thorakolumbaler frakturen der Wirbelsaule. Unfallchirurg, 101-619-627.
- Benson, D.R. and Keenen, T.L. (1990):** Evaluation and Treatment of Trauma to the vertebral column. Instr. Course Lect., 39: 577-589.
- Benson, D.R.; Burkus, J.K. and Montesano, P.X. (1992):** Unstable thoracolumbar and burst lumbar fractures treated with fixator intern. J. Spin. Disorders, 5: 335-343.
- Benzel, E.C. and Kesterson, L. (1991):** Texas Scottish Rite Hospital rod instrumentation for thoracic and lumbar trauma. J. Neurosurg., 75: 382-387.
- Beuli, I.T. and Tandogan, N.R. (1994):** Cotrel-Dubousset instrumentation in treatment of unstable thoracolumbar fractures. Arch Ortho Trauma Surg. 113:86.
- Black, R.; Cardner, V.; Armstrong, G.O. Neil, J. and S.T. George, M. (1988):** A contoured anterior spinal fixation plate. Clin. Orthop., 227: 135-141.
- Blauth, M.; Knop, C. and Bastain, L. (1998):** Brust-und lendenwirbelsaule. In: Tscherne h, Baluth m(eds) Tscherne unfallchirurgie-Wirbelsaule, 1st edn. Springer, Berlin Heidelberg New York,pp 241-372.
- Blauth, M.; Knop, C. and Bastian, L. (1997):** Behandlungsstrategie und Ergebnisse bei Frakturen im Bereich der BWS und LWS. Hefte Z Unfallchirurg, 268:171-179.
- Bodner, D.R.; Leffler, B. and Frost, F. (1992):** The role of intracavernous injection of vasoactive medications for the restoration of erection in spine cord injury males. A three-year follow-up. Paraplegia, 30:118- 120.
- Bogduck, N. and Engle, R. (1984):** The menisci of the lumbar zygoapophyseal joints. A review of their anatomy and clinical significance. Spine, 9:454.

- Bogduck, N. and Twomey, M. (1987):** Basic Human Anatomy of the axial skeleton. Spine, 9:164-170.
- Bohlman, H. and Mismont, F.(1981):** Surgical technique of anterior decompression and fusion for spinal cord injuries clin. Orthop., 57:154.
- Bohlman, H.H. (1988):** Late pain and paralysis following fracture of the thoracolumbar spine: long term results of anterior decompression and fusion in 41 patient. Orthop. Trans., 12:60.
- Bohlman, H.H. Freehafer, A. (1985):** The results of treatment to the upper thoracic spine with paralysis. J. Bone Joint Surg., 67: 630-369.
- Braakman, R.; Fontijne, W.P.J. and Zeegers, R. (1991):** Neurological deficit in injuires of the thoracic and lumbar spine: A consecutive series of 70 patients. Acta Neurochir., 111:11.
- Bracken, M.B.; Shepard, M.J. and Collins, W.F. (1999):** Methylprednisolone or naloxone treatment after acute spinal cord injury: 2-year follow-up data. Neurosurgery, 76:23.
- Bracken, M.B.; Shepard, M.J.; Holford, T.R. and Leo, Summers, L. (1997):** Administration of methyl prednisolone for 24h. or 48h. or tirilazad Mesylate for 48h in the treatment of acute spinal cord injury. J. of the American medical Association, Vol. 277 No. 20.
- Breig, A. (1990):** Biomechanics of the central nervous system: some Basic normal and pathologic phenomena. Spine, 8:312.
- Buhren, V.; Beisse, R. and Potulski, M. (1997):** Minimal invasive ventral spondylodesen bei verletzungen der Brust-und Lendenwirbelsaule. Chirurg, 68:1076-1084.
- Calancie, B.; Klose, K.J. and Baier S. (1991):** Isofluran- induced attenuation of motor evoked potentials caused by electrical motor cortex stimulation during surgery. J. Neurosurg., 74:897.
- Carl, A.L. and Roger, D.J. (1992):** Pedicle screw instrumentation in burst thoracolumbar fractures. Spine. 17:317.

- Castro, W.H.; Halm, H.; Jerosch, J.; Malms, J.; Steinbeck, J. and Blasius, S. (1996):** Accuracy of pedicle screw placement in lumbar vertebrae. *Spine*, 21:1320-1324.
- Chance, G.O. (1984):** Note on a type of flexion fracture of the spine. *J. Radiol.* 21:452.
- Chang, K.W.; Dewei, Z. and MeAfee, P.C. (1989):** A comparative biomechanical study of spinal fixation using the combination of spinal rod-plate and transpedicular screw fixation system. *J. Spinal Disord*, 1: 257-266.
- Chiba, M.; McLain, R.F. and Yerby, S.A. (1996):** Short segment instrumentation. Biomechanical analysis of supplemental hook fixation. *Spine*, 21:288-294.
- Christian Knop; Henry Fabian, F.; and Leonard Bastian (2001):** Late results of thoracolumbar fractures after posterior instrumentation and transpedicular bone grafting. *Spine.*, 26:88-99.
- Clohisy, J.C.; Akbarnia, B.A. and Bucholz, R.D. (1992):** Neurological recovery associated with anterior decompression of spine fractures at the thoracolumbar junction (T12-L1). *Spine*, 17: 325-330.
- Cotrel, Y.; Dubousset, J. and Guillaumat, M. (1988):** New Universal instrumentation in spinal surgery. *Clin. Orthop*, 227:10-23.
- Court-Brown, C. W. and Gertzbein, S.D. (1987):** The management of burst fractures of the fifth lumbar vertebra. *Spine*, 12:308–312.
- Crutcher, J.P.; Anderson, P.A.; King, H.A. and Montesano, P.X. (1991):** Indirect spinal canal decompression in patients with thoracolumbar burst fractures treated by posterior distraction rods. *J. spinal Disord.*, 1: 39-48.
- Cusick, J.F.; Yoganandan, N. and Pintar, F.A. (1992):** Biomechanics of sequential lumbar posterior surgical alternation. *J. Neurosurg*, 76:805-811.
- Daffner, R.H. and Rothfu, W.E. (1999):** MR and CT imaging of the head, neck and spine. *Spinal trauma*, 3: 1225-1227.

- Daffner, R.H.; Deeb, Z.L. and Rothfus, W.E. (1986):** Fingerprints” of vertebral trauma unifying concept based on mechanisms Skel. Radiol., 15:518.
- Dall, B.E. and Stauffer, E.S. (1988):** Neurologic injury and recovery patterns in burst fractures at the T12 or L1 motion segment. Clin. Orthop., 233:171-176.
- Dall, B.E. and Stauffer, E.S. (1988):** Neurological injury and recovery patterns in burst fractures at the T12-L 1 motion segment. Clin. Orth., 233:171-176.
- Dallb, Stauffer, E.S. (1988):** Neurologic injury and recovery patters in burst fractures at the T12 or L1 motion segment. Clin. Orthop., 233:171-176.
- Daniaux, H. (1986):** Transpedikijulare reposition und spongiosaplastik bei Wirbelorperbruchen dr untern Brust-und Lendenwirbelsaule. Unfall chirurg, 89:197-213.
- Danisa, O.A.; Shaffrey, C.I. and Jane, J.A. (1995):** Surgical approaches for the correction of unstable burst fractures: a retrospective analysis of treatment outcomes. J. Neurosurg., 83: 977-983.
- Davies, W.E.; Morris, J.H. and Hill, V. (1990):** An analysis of conservative (non-surgical) management of thoracolumbar fractures and fracture- dislocation with neural damage. J. Bone. Joint Surg., 62: 1324.
- De La Torre, J.C. (1983):** Spinal cord injury Review of basic and applied research. Spine., 6:315-335.
- Degreif, J.; Wenda, K.; Huwel, N. and Ritter, G. (1993):** Die Reposition von Fragmenten der Wirbelkorperhinterkante unter intraopetaive sonsographischer kontrollen. Unfallchirurg. 96:88-92.
- Del Bigio, M.R. and Johnson, G.E. (1989):** Clinical presentation of spinal cord concussion. Spine., 14:37.
- Delameter, R.B.; Sherman, J. and Carr, J.B. (1995):** Pathophysiology of spinal cord injury, J. Bone Joint Surg., 77: 1042-1048.

- Denis, F. (1983):** The three- column spine and its significance in the classification of acute thoracolumbar spinal injuries. *Spine*, 8: 817-831.
- Denis, F. (1983):** The three-column spine and its significance in the classification of acute thoracolumbar spinal injuries. *Spine*, 8:817.
- Denis, F. (1984):** Spinal instability as defined by the three- column concept in acute spine trauma. *Clin. Orthop.*, 189:65-76.
- Denis, F. and Burkus, K. (1992):** Shear Fracture dislocation of the thoracic and lumbar spine associated with forceful hyperextension (lumberjack paraplegia). *Spine*, 17:156-161.
- Denis, F.; Armstrong, G.W.D. and Searls, K. (1984):** Acute thoracolumbar burst fractures in the absence of neurological deficit. *Clin. Orthop.*, 189:142.
- Dickey, R. (1996):** Electronic technical aids for persons with high level Spinal cord injury. *Cent. Nerv. Sys. Trauma*, 3:93-110.
- Dickman, C.A.; Fessler, R.C. and MacMillan, M. (1992):** Transpedicular screw- rod fixation of the lumbar spine. Operative technique and outcome in 104 cases. *J. Neurosurg.*, 77:860-870.
- Dommissie, G.F. (1986):** The blood supply of the spinal cord. In modern Manula therapy (Grieve G.P. ed) Edinburgh Chrurchill Livingstone. Ch. 4. pp. 37-52.
- Dunn, H.K. (1986):** Anterior spine stabilization and decompression for thoracolumbar injuries. *Orthop. Clin. North Am.*, 17:113.
- Dwyer, A. (1973):** Experience of anterior correction of scoliosis. *Clin. Orthop.*, 93:191.
- Edwards, C.C. and Levine, A. (1987):** Lumbar spine trauma: the Lumbar Spine. New York Raven Press, 183-212.
- Edwards, C.C.; Levine, A.M. and Weigel, M.C. (1987):** Determinants of neurologic recovery following post-traumatic incomplete paraplegia *orthop. Trans.*, 11:453.

- Eeinstein, J.N. and Collato, P. (1988):** Thoracolumbar fractures treated conservatively. *Spine*, 13:33.
- Eismont, F.J.; Garfin, S.R. and Abitol, J. (1993):** Thoracic and upper lumbar spine injuries. In Browner BD, Jupiter J.B. Levine AM *Skeletal Trauma*, I. Philadelphia, W.B. Saunders, 729-803.
- Eismont, F.J.; Wiesel S.W. and Rothman R.H. (1981):** Treatment of dural tears associated with spinal surgery. *J. Bone Joint Surg.*, 63: 1132-1136.
- El- Hawary, Y.K. (1990):** Management of traumatic paraplegia. Personal communication.
- El- Khoury, G.Y. and Whitten, C.G. (1993):** Trauma to the upper thoracic spine: anatomy, biomechanics, unique imaging features. *A.J.R.* 160:95-102.
- Emery S.E.; Pathria, M.N. and Wilber, R.G. (1989):** Magnetic resonance imaging of posttraumatic spinal ligament injury. *J. Spinal Disord.*, 2:229.
- Ernest, M. (1993):** Orthopaedic knowledge update 4. Rosemont, IL. American Academy of Orthopaedic Surgeons, 37: 461-474.
- Esses, S.I. and Botsford, D.J. (1991):** Operative treatment of thoracolumbar fractures with AO internal fixator. *Spine.*, 16: 146.
- Esses, S. I.; Botsford, D.J. and Wright, R.(1991):** Operative treatment of spinal fractures with the AO internal fixator. *Spine*, 16: 146-150.
- Esses, S.I. Botsford, D.J. and Kostuik, J.P. (1990):** Evaluation of surgical treatment for burst fractures. *Spine*, 15:557-673.
- Eysel, P. and Meinig, G. (1991):** Comparative study of different dorsal stabilization techniques in recent thoracolumbar spine fractures. *Acta Neurochir.*, 109:12–19.
- Fawzy Gaballah, and Zaizafon Badawy, (1997):** In Basic Human anatomy. Thorax- 4th edition, 56-60.

- Ferguson, R.L. and Allen, B.L. Jr. (1984):** A mechanistic classification of thoracolumbar spine fracture. Clin Orthop., 189:77-88.
- Flankers, A.E.; Schaefer, D.M.; Doan, H.Y. (1990):** Acute cervical spine trauma: correlation of MR imaging findings with degree of neurological deficit. Radiology, 177: 25.
- Fontijne, W.P.; DeKler, L.W.L. and Braakman, R. (1992):** CT scan prediction of neurological deficit in thoracolumbar burst fractures. J. bone. Joint Surg. 74:683-685.
- Francois, R.J. and Dhem, A. (1974):** Microradiographic study of the normal human vertebral body. Acta Anat., 89:251.
- Frankel, H.L.; Hancock, D.O. and Hyslop, G. (1989):** The value of postural reduction in the initial Management of closed injuries of the spine with Paraplegic and Tetraplegia: paraplegia, 7:179-192.
- Frederlckson, B.E.; Edwards, W.T. and Rauschnig, W. (1992):** Vertebral burst fractures: an experimental, morphologic, and radiographic study. Spine, 17:1012-1021.
- Fredrickson, B.; Mann, K.; Yuan, H. and Lubicky, J. (1988):** Reduction of the intracanal fragment in experimental burst fractures. Spine, 13: 267-271.
- Fredrickson, B.E. Edwards, W.T. Rauschnig, W. Bayley J.C. and Yuan, H.A. (1992):** Vertebral burst fractures: an experimental, morphologic and radiographic study. Spine., 17: 1012-12
- Fritz, T.; Klein, A.; Krieglstein, C.; and Mattern, R. (2000):** Teaching model for intraoperative spinal sonography in spinal fractures. Arch. Orthop. Trauma Surg. 120:183-187.
- Frymoyer, J.W. (1993):** Orthopaedic knowledge Update 4. American Academy of Orthopaedic Surgeons, Thoracolumbar spine Trauma, 37: 461-474.
- Gaines, R.W. and McCormack, T. (1994):** The load sharing classification in spine fractures. 19: 1714-1744.

- Gaines, R.W.; Carson W.L. and Satterlee, C.C. (1987):** Improving quality of spinal internal fixation: evaluation toward “ideal immobilization” A-biomechanical study. *Orthop. Trans.*, 11:86-87.
- George, D.C.; Krag, M.H.; Johnson, C.C.; Van Hal, M.E.; Haugh, L.D. and Grobler, L.J. (1991):** Hole preparation technique for transpedicle screws. Effect on pull-out strength from human cadaveric vertebrae. *Spine*, 16:181-184.
- Gertzbein, S.D. (1994):** Neurological deterioration in patients with thoracic and lumbar fractures after admission to the hospital. *Spine*, 19: 1723.
- Gertzbein, S.D. (1994):** Neurological deterioration in patients with thoracic and lumbar fractures after admission to the hospital. *Spine*, 19:1723.
- Gertzbein, S.D. (1994):** Spine update classification of thoracic and lumbar fractures. *Spine*, 19:626.
- Gertzbein, S.D. and Court, Bround, C.M. (1989):** Treatment of flexion distraction injury of the thoracolumbar spine based on a new classification. *J. Spin. Disord.*, 2:176.
- Gertzbein, S.D. and Robbins, S.E. (1990):** Accuracy of pedicular screw placement in vivo. *Spine* 15:11-14.
- Gertzbein, S.D.; Crowe, P.J.; Schwartz, M. and Rowed, D. (1992):** Canal clearance in burst fractures using the AO internal fixator. *Spine*, 17:558-60.
- Glass, R.B.; Sivit, C.J. and Sturm, P.F. (1994):** Lumbar spine injury in a pediatric population: difficulties with computed tomographic diagnosis *J. Trauma*, 37:815-819.
- Glossop, N.D.; Hu, R.W. and Randle, J.A. (1996):** Computer aided pedicle screw placement using frameless stereotaxis. *Spine*, 21:2026-2034.
- Gundry, C.R. and Heithoff, K.B. (1993):** Epidural hematoma of the lumbar spine: 18 Surgically confirmed cases. *Radiology*, 187:427.

- Gupta, A. and El. Masri, W.S. (1989):** Multilevel spinal injuries: incidence, distribution, and neurological patterns. *J. Bone. Surg.*, 71:692.
- Gurr, K.R. and McAfee, P.C. (1988):** Cotrel- Dubousset instrumentation of adult spine. *Spine*, 13:510.
- Guyer, D.W.; Yuan, H.A. and Werner, F.W. (1987):** Biomechanical comparison of seven internal fixation devices for the lumbosacral junction *Spine*, 12: 569-573.
- Haas, N.; Blauth, M. and Tscherne, H. (1991):** Anterior plating in thoracolumbar spine injuries: Indication, technique, and results. *Spine*, 16: 100–111.
- Haas, N.; Blauth, M. and Tscherne, H. (1991):** Anterior plating in thoracolumbar spine injuries indication, technique, and results. *Spine*. 16: 100-111.
- Haheer, T.R. and Bergman, M. (1991):** The effect of the three columns of the spine on the axis of rotation in flexion and extension *Spine*, 16:312-318.
- Haheer, T.R.; Lospinuso, M. Tozz, J.; Devlin, V.; Corces, A.F.; Valenza J. Parriesh, S.; Ahmed, J.; Tenant, R. and O'brien, M. (1987):** The contribution of the three columns of the spine to spinal stability: A biomechanical model. Proceedings of the 22nd annual meeting of the scoliosis Research Society. Vancouver, BC. Canada, September.
- Haheer, T.R.; O'Brien, M. and Dreyer, J.W. (1994):** The role of lumbar facet joints in spine stability: identification of the alternative pathways of loading the spine. *Spine*, 19:1667-2670.
- Hamilton, A. and Webb, J.K. (1994):** The role of anterior surgery for vertebral fractures with and without cord compression. *Clin. Orthop.* 30: 79-89.
- Hardaker, W.T.; Jr. Cook, W.A. Jr. and Friedman A.H. (1992):** Bilateral transpedicular decompression and Harrington rod stabilization in the management of several thoracolumbar burst fractures. *Spine*, 17: 162-171.

- Harms, J.; Tabasso, G. (1999):** Thoracic and lumbar fractures. Instrumented spinal surgery principles and technique. 1st edn. Thieme, Stuttgart New York, pp 28-71.
- Harris, J.H. Jr, and Yeakley, J.W. (1992):** Hyperextension – dislocation of the cervical spine: Ligament injuries demonstrated by magnetic resonance imaging. J. Bone. Joint. Surg., 74: 567.
- Hashimoto, T.; Kaneda K. and Abumi, K. (1988):** Relationship between traumatic spinal canal stenosis and neurology deficits in the thoracolumbar burst fracture. Spine, 13: 1268-72.
- Hass, J. (1984):** Pathophysiologische und technische Aspekte bei thorakalen Wirbelsäulenoperationen. Z Orthop, 122:509-512.
- Herzenberg, J.E.; Hensinger, R.N.; Dedrick, D.K. and Phillips W.A. (1989):** Emergency transport and Positioning of Young children who Have an injury of the cervical spine: The standard Backboard May be Hazardous. J. Bone Joint Surg., 71: 15-22.
- Holdsworth, F.W. (1993):** Fractures, dislocations, and fracture/dislocations of the spine. J. bone joint Surg. (Br.). 45:6-20.
- Hollowell, J.P. and Maiman, D.J. (1993):** Management of thoracic and thoracolumbar spine trauma. American Association of Neurological Surgeons, 111:127-156.
- Huckell, C.B.; Powell, J.; Eggli, S. and Hu R. (1994):** A comparative analysis of Distraction Rods Versus Luque Rods in Thoracic Spine Fractures. Eur. Spine J., 3: 270-275.
- Hukins, D.W.; Kirby, M.C. and Sikoryn, T.A. (1990):** Comparison of structure, mechanical properties, and functions of lumbar spinal ligaments. Spine, 15:787-795.
- Jacobs, R. and Casey, P. (1984):** Surgical management of the thoracolumbar spinal injuries. Clin. Orthop., 22:189.
- Jacobs, R.R. and Asher, M.A. (1980):** Thoracolumbar fractures: A comparative study of the recumbent and operative treatment in 100 patients. Spine, 5:463.

- Jacobs, R.R.; Schaepfer, F. and Maths, R. Jr. (1984):** A locking hook spinal rod system for stabilization of fracture dislocations and correction of deformities of the dorsolumbar spine: A biomechanical evaluation. Clin. Orth., 189:168-177.
- James, K.S.; Wenger K.H.; Schiegel, J.D. (1994):** Biomechanical evaluation of the stability of thoracolumbar burst fractures. Spine, 19: 1731.
- James, K.S.; Wenger, K.H.; Schiegel, J.D. (1994):** Biomechanical evaluation of the stability of thoracolumbar burst fractures. Spine, 19:1731.
- Jean Oliver and Alison Middleditch, (1991):** In functional Anatomy of the spine, 4: 156.
- Jelsma, R.K.; Kirsch M. and Jelsma, L.F. (1983):** Surgical treatment of thoracolumbar fractures. Neurosurgery J., 18: 156-166.
- Jensen, K.S.; Mosekilde, L. and Mosekilde, L. (1990):** A model of vertebral trabecular bone architecture and its mechanical properties. Bone, 11:417-423.
- John, B.; Sledge, Dain Allred, B.S. and Josh Hyman, (2001):** Use of Magnetic Resonance Imaging in evaluating injuries to the pediatric spine. J. of pediatric orthopaedics, 21:285-293.
- Johnston, C.E. and Ashman, R.B. (1987):** Mechanical consequences of rod contouring in sublamina segmental instrumentation. J. Orth., 5: 206.
- Jousse, A. T. (1991):** Emotional aspects of physical handicap. Can. Nurse. 57:8.
- Kapandji, I.A. (1974):** Physiology of the joints. New York; Churchill Livingstone.
- Kazarian, L.E. (1975):** The primate as a model for Crash injury. Proceedings of the 19th Stapp Car Crash Conference, 931-963.
- Keene, J.S. and Goletz, T.H. (1982):** Diagnosis of vertebral fractures. J. Bone Joint Surg., 64: 586-595.

- Kim, N.H.; Lee, H.M. and Chun, I.M. (1999):** Neurologic injury and recovery in patients with burst fracture of the thoracolumbar spine. *Spine.*, 24:290-293.
- Kloppel, R.; Brock, D. and Kosling, S. (1997):** Spiral computerized tomography diagnosis of abdominal seat belt injuries in children. *Aktuel Radiol*, 7:19-22.
- Knop, C.; Bastain, L.; Lange, U.; Oeser, M.; Zdichavsky, M. and Blauth, M. (2002):** Complications in surgical treatment of thoracolumbar injuries. *Eur. Spine. J.*, 11:214-226.
- Knop, C.; Fabian, H. F. and Bastain, L. (2002):** Fate of the transpedicular intervertebral bone graft after posterior stabilization of thoracolumbar fractures. *Eur. Spine.J.*, 11:251-257.
- Kossmann, T.; Wrtel, W.; Platz, A. and Trentz, O. (1999):** Die kombinierte Operation von Frakturen des thorakolumbalen Übergangs mit der inlay-Span –Technik, *Orthopade* 28:432-440.
- Kostuik, J. (1983):** Anterior spinal cord decompression for lesions of the thoracic and lumbar spine. *Techniques, New methods of internal fixation & results. Spine*, 8:512.
- Kostuik, J.P. (1983):** Anterior spinal cord decompression for lesions of the thoracic and lumbar spine: Techniques, new methods of internal fixation, results. *Spine*, 8:512-531.
- Kothe, R.; O'Holleran, J.D.; Liu, W. and Panjabi, M.M. (1996):** Internal architecture of the thoracic pedicle. An anatomic study. *Spine*, 21:264-270.
- Krag, M.H.; Van Hal, M.E. and Beynnon, B.D. (1989):** Placement of transpedicular vertebral screws close to anterior vertebral cortex. *Discription of methods. Spine*, 14:879-883.
- Krompinger, J.; Fredrickson, B.; Mino, D. and Yuna, H. (1986):** Conservative treatment of fractures of the thoracic and lumbar spine. *Orthop. Clin. N. Am.*, 17:161-167.

- Kuner, E.H.; Kuner, A. and Schlickewei, W. (1994):** Ligamentotaxis for fixation of thoracolumbar fractures. J. Bone Joint Surg., 67: 107-112.
- Kuner, E.H.; Kuner, A. and Schlickewei, W. (1997):** Restoration of the spinal canal by internal fixator and remodeling. Europ. Spine. J., 6: 417-422.
- LaGrone, M.O.; Bradford D.S. and Moe, J.H. (1988):** Treatment of symptomatic flatback after spinal fusion. J. Bone. Joint Surg., 70: 569-580.
- Langvava, N.A.; Harten, R.D. and Lin, D.C. (2002):** Acute thoracolumbar Burst fractures. Spine, 27: 998-507.
- Larson, S.J.; Holst, R.A.; Hemmy, D.G. and Sances A. (1976):** Lateral extrac-cavitary approach to traumatic lesions of the thoracic and lumbar spine. J. Neurosurg., 45: 628-637.
- Lebwohl, N.H. and Starr, J.K. (1993):** Surgical management of thoracolumbar fractures. Handbook of Head and Spine Trauma, 593-646.
- Lemons, V.R.; Wagner, F.C. and Montesano, P.X. (1992):** Management of thoracolumbar fractures with accompanying neurological injury. Neurosurgery, 30: 671-677.
- Liisa, I.; Kerttula, Willy, S.; Serlo, P.H. and Osmo, A. (2000):** Post-traumatic findings of the spine after earlier vertebral fracture in Young patients clinical and MRI study. Spine, 9:1104-1138.
- Lindahl, S.; Willen, J. and Irtam, L. (1983):** Computed tomography of bone fragments in the spinal canal. An experimental study. Spine, 8:181.
- Lindhal, S.; Willen, J. and Jrston, L. (1985):** Unstable thoracolumbar fractures: A comparative radiological study of conservative treatment and Harrington instrumentation Acta. Radio., 26:67-72.

- Lindsey, R.W.; Dick, W. and Nunchuck, S. (1993):** Residual intersegmental spinal mobility following limited pedicle fixation of thoracolumbar fractures. *Spine*, 18: 474-478.
- Louis, R. (1986):** Fusion of the lumbar and sacral spine by internal fixation with screw plates. *Clin orthop* 203:18-33.
- Magerl, F.; Harms, J. and Gertzbein, S.D. (1991):** A new classification of spinal fractures. *Orthop. Trans.*, 15:728.
- Mahmoud Kadry, El-guindy, Amr. M. El-Khadrawy, Mohamed F. Aggag, and Shehab, M. El-Khadrawy, (1996):** Lumber spinal trauma comparative study between Axial CT and image reconstructions. *J.N.S.*, 11: 513-522.
- Maiman, D.J. and Pintar, F.A. (1990):** Anatomy and clinical biomechanics of the thoracic spine. *Clin. Neurosurg.*, 38:296.
- Maiman, D.J. and Syptert, G.W. (1988):** Management of trauma of the thoracolumbar junction: Part II. Contemporary. *Neurosurgery.*, Vol. 11. No. 5.
- Maiman, D.J.; Sances, A. Jr. Mykelbust, J.B. (1986):** Experimental trauma of the thoracolumbar spine. In. mechanisms of Head and spine Traum. 4: 489-504.
- Maiman, D.J.; Syptert, G.W. (1988):** Management of trauma of the thoracolumbar junction Part II. *Contemp Neurosurg.*, 11: 1-6.
- Maiman. D.J. and Pintar, F.A. (1990):** Anatomy and clinical biomechanics of the thoracic spine. *Clin. Neurosugr.*, 38:296.
- Mamohar, M.; Panjabi, Yoshihiko Kato (2001):** Canal and intervertebral foramen encroachments of a Burst fracture. *Spine*, 26:123-127.
- Markus Schulthesis; Lothar Kinzl and Lutz Claes (2003):** Minimally invasive ventral spondylodesis for thoracolumbar fracture treatment: Surgical technique and first clinical outcome. *Eur. Spine. J.*, 3: 586-564.

- McAfee, P.C. (1985):** Biomechanical approach to instrumentation of thoracolumbar spine: A review article. *Adv. Orthop. Surg.*, 313-327.
- McAfee, P.C.; Yuan, H.A. and Fredrickson, B.E. (1983):** The value of computed tomography in thoracolumbar fractures: An analysis of one hundred consecutive cases and a new classification. *J. Bone Joint Surg. Am.*, 65:461-473.
- McAfee, P.C.; Wetland, J. and Carla, J.J. (1991):** Survivorship analysis of pedicle spinal instrumentation. *Spine*, 16: 422-427.
- McBride, C.G. (1993):** Cotrel- Dubousset Instrumentation in surgical stabilization of spinal fractures. *Spine*, 18:466.
- McCormack, T.; Karaikic, E. and Gaines, R.W. (1994):** The load-sharing classification of spine fractures. *Spine*, 19:1741.
- McGuire, RA.; Neville, S.; Green, B. and Walls C. (1987):** Spinal and the Log Rolling Maneuver. *J. Trauma*, 27: 252-531.
- McKinkly, T.O.; McLaine, R.F. (1999):** Characteristics of pedicle screws loading. Effect of surgical technique on intervertebral and pedicular bending momentum. *Spine*, 24: 18-24.
- McLain, R.F. and Benson, D.R. (1999):** Urgent surgery stabilization in poly-traumatized patients. *Spine*, 24:1646.
- McLain, R.F.; Sparling, A. and Benson, D.R. (1993):** Early failure of short segment instrumentation for thoracolumbar fractures. *J. Bone Joint Surg.*, 75: 162-167.
- McMinn, R.M.H. (1994):** In Last's Anatomy Regional and Applied, Ninth Edition- Churchill Livingstone, 7:619-626.
- McNamar, M.J.; Stephens, G.C. and Spengler D.M. (1992):** Transpedicular short- segment fusions for their treatment of lumbar burst fractures. *J. Spinal Disor.*, 5: 183-187.
- Mermistein, L.E.; McLain, R.F. and Yerby, S.A. (1998):** Reinforcement of thoracolumbar fractures by calcium phosphate cement. *Spine*, 23:664-670.

- Meter, J.J.; Polly, D.W.; Jr Miller, D.W.; Popovic, N.A. and Ondra S.L. (1996):** A method for radiographic evaluation of pedicle screw violation of the vertebral endplate. *Spine*, 21:1587-1592.
- Miller, J.A. and Smith, T.H. (1991):** Seatbelt induced Chance fracture in an infant. *Pediatric Radiol.*, 21:575.
- Mirvis, S.E. and Wolf, A. (1990):** Emerging MRI role : Assessing cervical spine trauma. *MRI Decisions*, 1:20.
- Misenhimer, G.R.; Peek, R.D.; Wiltse L.L.; Rothman, S.L. and Widell, E.H.Jr. (1989):** Anatomic analysis of pedicle cortical and cancellous diameter as related to screw size. *Spine*. 14:367-372.
- Morris, R.E.; Hasso, AN. And Thompson, J.R. (1984):** Traumatic dural tears: CT diagnosis using metrizamide. *Radiology*, 152:443.
- Muller; Ulrich Berlemann and John Sledge (1999):** Treatment of thoracolumbar Burst fractures without neurological deficit by indirect reduction and posterior instrumentation: bisegmental stabilization with monosegmental fusion. *Eur. Spin. J.*, 8:284-289.
- Nam-Hyun Kim; Hwan-Mo Lee and In-Mo Chun (1999):** Neurologic injury and recovery in patients with Burst fracture of the thoracolumbar Spine. *Spine*, 24:290-294.
- Newman, P. and Osvalder, A.L. (1992):** The mechanism of initial flexion distraction injury in the lumbar spine. *Spine*, 17:1083-1090.
- Nicholas, J.J. (1973):** Ectopic bone formation in patients with spinal cord injury. *Arch phys, Med Rehabil*,m 54: 354-359.
- Oveton, L. (1955):** Arthodesis of the lubosaral spine. *Clin. Orthop.*, 5:97.
- Oxland, T.R.; Lin, R.M. and Panjabi, M.M. (1992):** Three dimensional mechanical properties of the thoracolumbar junction. *J. Orthop. Res.*, 10:573-580.
- Oxland, T.R.; Lin, RM.; Panjabi, M.M. (1992):** Three dimensional mechanical properties of the thoracolumbar junction. *J. Orthop.* 10: 573-580.

- Panjabi, M.M. (1992):** The stabilizing system of the spine. Function dysfunction, adaptation and enhancement. J. Spinal. Disord., 5:383-389.
- Panjabi, M.M. Crisco, J.J. (1988):** What constitute spinal stability? Clin. Neurosurgery, 34: 313-339.
- Panjabi, M.M.; Kifune, M. and Wen, L. (1995):** Dynamic canal encroachment during thoracolumbar burst fractures. J. Spinal Disord., 8: 39-48.
- Peakcock, A. (1992):** Observation on the postnatal structure of the intervertebral disc in man. J. Anat., 86:162-179.
- Peckham, P.H.; Keith, M.W. and Freehafer, A.A. (1988):** Restoration of functional control by electrical stimulation in the lower extremity of the quadriplegic patient. J. Bone Joint Surg. Am., 70: 144-148.
- Per Wessberg, Yuxing Wang, Lars Irtam and Anders Norwall (2001):** The effect of surgery and remodeling on spinal canal measurements after thoracolumbar burst fractures. Eur. Spin. J., 10:55-63.
- Peter Wendschp; Jan Kocis and Peter Visua (2002):** Interbody fusion in thoracolumbar fracture. Eur. J. of trauma, 28: 16-23.
- Pintar, F.A. Yogandandan, N. Myers, T. (1992):** Biomechanical properties of human lumbar spine ligaments. J. Biomech., 25: 1351-1356.
- Poss, R. (1990):** Orthopaedic knowledge Update 3. American Academy of Orthopaedic Surgeon, 34 : 425-440.
- Pratt, E.S.; Green, D.A. and Spengler, D.M. (1990):** Herniated intervertebral discs associated with unstable spinal injuries. Spine, 15:662.
- Puno, R.M.; Bechtold, J.E. and Byrd, J.A. (1987):** Biomechanical analysis of five technique of fixation for the lumbosacral junction. Orthop. Trans., 11:86.

- Rauschnig, W. (1986):** Anatomy of the normal and traumatized spine. Mechanisms of Head and Spine. Trauma. Goshen, NY. Aloray Publishers, 531-564.
- Reiger, A. and Rainov, N.G. (1997):** Dorsal spondylodesis of unstable thoracolumbar fractures a far lateral approach to the disc. Spine, 40:130-133.
- Riebel, G.D.; Yoo, J. U. and Fredrickson, B. E. (1993):** Review of Harrington rod treatment of spinal trauma. Spine, 18:479.
- Rockoff, S.D.; Sweet, E. Bleustein, J. (1969):** The relative contribution of trabecular and cortical bone to the strength of human lumbar vertebrae. Calcify tissue, Res., 3:163-175.
- Roger, W. and Soames, (1995):** In Gray's Anatomy. 38 edition. Churchill Livingstone, New York. 6: 510-512.
- Roger, W. and Soames, (1995):** In Gray's Anatomy. 38 edition. Churchill Livingstone. New York. 6: 514-515.
- Roger, W. Soames, (1995):** In Gray's Anatomy. 38 edition. Churchill Livingstone, New York. 6: 522-524.
- Rohlmann, A.; Berman, G. and Graichen, F. (1997):** Loads on the internal fixation device during walking. J. Biomech., 30:41-47.
- Rosemont, I.L. (1993):** American Academy of Orthopaedic surgeons, thoracolumbar spine trauma, 38: 474-485.
- Rothman, R.H. and Simeone, F.A. (1975):** The spine. Philadelphia, WB Saunders, Co. 19.
- Roy-Camille, R.; Saillant, G. and Mazel, C. (1986):** Internal fixation of the lumbar spine with pedicle screw plating. Clin orthop 203:7-17.
- Saifuddin, A.; Noordeen, H. and Taylor B.A. (1996):** The role of imaging in the diagnosis and management of thoracolumbar burst fractures. Current concepts and a review of the literature. Skeletal Radiol., 25:603-613.

- Samy, M.; Tourky, Magdy A. and El Mehalawy (1999):** "Traumatic thoracolumbar Burst spinal fractures". Evaluation of traspedicular screws and posterior plating in management of 20 cases. E.J.N.S., 14. 51-61.
- Sarmiento, A. and Latta, L. (1994):** The role of soft tissues in stabilization of tibial fracture Clin. Ortho., 105:116-129.
- Schegel, J.; Yuan, H.A. and Fredricksen, B. (1991):** Anterior interbody fixation devices. The adult spine. Now York: Raven Press, 1947-1959.
- Sebastian; Furderer Klaus and Wenda Norbert Thiem (2001):** Traumatic intervertebral disc lesion magnetic resonance imaging as a criterion for or against intervertebral fusion. Eur Spin. J., 10:154-163.
- Silberstein, M.; Tress, B.M. and Hennessy, O. (1992):** A comparison between MRI and CT in acute spinal trauma. Australas. Radiol., 36:192-197.
- Silen, M.L. and Weber, T.R. (1995):** Management of thoracic duct injury associated with fracture – dislocation of the spine following blunt trauma. Spine, 39:1185-1187.
- Sjostrom, L.; Jakosbasson, O.; Karlstrom, G.; Pech, P. and Rauschning, W. (1995):** Spinal canal remodeling after stabilization of thoracolumbar burst fractures. Eur. Spine J., 3:312-317.
- Slosar, P.J. Jr. Patwardhan, A.G. Lorenz, M. (1995):** Instability of the thoracolumbr burst fractures and limitations of pedicular screws. Spine, 20:1454-1461.
- Soreff, J.; Axdopin, G.; Odeen, I. and Olerud, S. (1982):** Treatment of patients with unstable fractures of the thoracic and lumbar spine. Acta Orthop., 53. 359-375.
- Stahlman, G.C. and Wyrsh, R.B. (1995):** Late onset sternomanubrial dislocation with progressive kyphosis deformity after a thoracic burst fracture. J. Orth. Trauma, 9:350-353.

- Stambogh, J.L. (1994):** Cotrel- Dubousset instrumentation and thoracolumbar trauma. *J. spine Disorders.*, 7:461.
- Starr, J.K. and Handle, E.N.(1992):** Junction burst fractures. *Spine.* 17:551-557.
- Stoltze, D. and Harms, J. (1999):** Korrekturen postraumatischer Fehlstellungen Prinzipien und Techniken. *Orthopade*, 28:731-745.
- Sullivan, J.A. (1984):** Sublaminar wires of Harrington distraction rods for unstable thoracolumbar fractures. *Clinic. Orth.* 3:178-189.
- Tasdemiroglu, E. and Tibbs, P.A. (1995):** Long-term follow up results of thoracolumbar fractures after posterior instrumentation. *Spine*, 20:1704.
- Taylor, J.R. and McCormick, C.C. (1991):** Lumbar facet joint fat pads: their normal anatomy and their appearance when enlarged. *Neuroradiology*, 33:38.
- Thomas, M. and Gavin, Burr Ridge, (2001):** Biomechanics of traumatic thoracolumbar spinal injuries. *Journal of proceeding. Module* 5.
- Tori, J.A. and Hill, L. (1978):** Hypercalcemia in patients with spinal cord injury. *Arch phys Med. Rehabil.*, 59: 443-446.
- Toyohiko Oda; Manohar, M.; Panjabi and Yoshihiko Kato (2001):** The effects of pedicle screw adjustments on the anatomical reduction of thoracolumbar burst fractures. *Eur. Spine. J.*, 10:505-511.
- Trafton, P.G. and Boyd, C.A. (1984):** Computed tomography of thoracic and lumbar spine injury. *J. Trauma*, 24: 506-515.
- Tulsi, R.S. Hermanis, G.M. (1992):** A study of the Angle of inclination and facet curvature of superior lumbar zygoapophyseal facets. *Spine*, 18:1311-1317.
- Vaccaro, J.; An, H. and Colter, J. (1991):** Low Lumbar burst fractures : comparison among body cast., Harrington rod, Luque rod, and Steffe plates. *Spine*, 16: 440-444.

- Van Burent, R.L.; Wagner, F.C. and Montesano, P.X. (1992):** Management of thoracolumbar fractures with accompanying neurological injury. *Neurosurgery*, 30: 667-671.
- Walmsley, R. (1992):** Joins. In GJ Romanes (Ed): *Cunningham's Textbook of Anatomy*. 11th Ed. London, Oxford University Press. 214.
- Warwich, R. and Williams, P.L. (1973):** *Gray's Anatomy*. 35th British Ed. Philadelphia, WB Saunders Co. 407.
- Waston, T. and D. Benson, (1990):** Innervation of spinal structures. *J. Bone*, 23: 312.
- Watkins, M. (1995):** Posterolateral fusion of the lumbar and lumbosacral spine. *J. Bone joint Surg.*, 35: 1014.
- Weinstein, J.N. Rydevik B.L. and Rauschnig, W. (1992):** Anatomic and technical consideration of pedicle screw fixation. *Clin. Orthop.*, 284: 34-46.
- Weinstein, J.N.; Collatlo, P. and Lehman, T.R. (1988):** Thoracolumbar "burst" fractures treated conservative: a long-term follow-up. *Spine*, 13:33-38.
- Wesley, A.; and William, T. (1996):** Injuries to the thoracic and lumbar spine in Neurosurgery. Wilkins RH and Rengachary 55 (eds). New York: MCGraw- Hill Book Co., 2nd edition, 2987-2995.
- West, J.L.; III Bradford, D.S. and Ogilvie, J.W. (1991):** Results of spinal arthrodesis with pedicle screw plate fixation. *J. Bone. Joint Surg. Am.*, 73:1179-1184.
- Westfall, S.H.; Akbartia, B.A. and Merenda, J.J. (1987):** Exposure of the anterior spine: technique, complications and results in 85 patients. *Am. J. Surg.*, 154: 700-704.
- White, A.A. and Paqnjabi, M.M. (1990):** Clinical biomechanics of the spine. 2nd Ed. Philadelphia, J. B., 722.
- White, AA.; Panjai, M.M. (1978):** Clinical biomechanics of the spine. Philadelphia. J.B. Lippincott.

- Willis, T.A. (1989):** Nutrient arteries of vertebral bodies. J. bone. St. Surg., 31: 538-540.
- Wun-Jer Shen; Tsung Jen Liu and Young-Shung Shen (2001):** Non operative treatment versus fixation for thoracolumbar junction Burst fractures without Neurologic deficit. Spine, 26:1038-1045.
- Yasici, M.; Gulman, B. and Sen, S. (1995):** Sagittal contour restoration and canal clearance in thoracolumbar fractures. J. Orth Trauma, 9:491-498.
- Yoganadan, N.; Pintar, F. and Butler, J. (1989):** Dynamic response of human cervical spine ligaments. Spine, 14:1102-1110.
- Yoganandan, N.; Maiman, D.J. and Pintar, F. (1988):** Microtrauma in the lumbar spine. A case of low back pain. Neurosurgery, 2: 162-168.
- Young, P.C. and Petersilge, C.A. (1999):** MR imaging of the traumatized lumbar spine. MRI clin. North Am., 7:589-602.
- Young-Shung Shen and Wun-Jer Shen (1999):** Non Surgical treatment of three column Burst fractures without neurologic deficit. Spine, 24:412-415.
- Zdichavsky, M.; Bastian, L.; Knop, C.; Lotz, J. and Blauth, M. (2001):** Transpedicular spinal screws: a new scoring –system. J. Bone Joint Surg. Am., 74:1189-1192.
- Zindrick, M. R.; Wiltse, L. L. and Widell, E. H. (1986):** A biomechanical study of intrapedicular screw fixation in the lumbosacral spine. Clin. Orthop., 203: 99-111.