DAFTAR PUSTAKA

Agarwal A., Durairajanayagam D., Halabi J., Peng J., Vazquez-Levin M., 2014. Proteomics, oxidative stress and male infertility. *Reprod. Biomed. Online* 29(1): 32–58.

Aghaloo TL., Moy PK., Freymiller EG., 2002. Investigation of platelet-rich plasma in rabbit cranial defects: A pilot study. *J. Oral Maxillofac. Surg.* 60(10): 1176–81.

Alberts B., Johnson A., Lewis J., Raff M., Roberts K., Walter P., 2008. Apoptosis. *Molecular biology of the cell*. 5th ed: 1115–30. Garland Science, New York.

Alves MG., Martins AD., Rato L., Moreira PI., Socorro S., Oliveira, PF., 2013. Molecular mechanisms beyond glucose transport in diabetes-related male infertility. *Biochim. Biophys. Acta - Mol. Basis Dis.* 1832(5): 626–35.

Amaral S., Ramalho-Santos J., Oliveira P., 2008. Diabetes and the Impairment of Reproductive Function: Possible Role of Mitochondria and Reactive Oxygen Species. *Curr. Diabetes Rev.* 4(1): 46–54.

Andrade M., Defreitasbrandao C., Sa C., Devbittencourt T., Sadigursky M., 2008. Evaluation of factors that can modify platelet-rich plasma properties. *Oral Surgery, Oral Med. Oral Pathol. Oral Radiol. Endodontology* 105(1): 5–12.

Ayaz A., Agarwal A., Sharma R., Arafa M., Elbardisi H., Cui Z., 2015. Impact of precise modulation of reactive oxygen species levels on spermatozoa proteins in infertile men. *Clin. Proteomics* 12(4): 1–16.

Badran KW., Sand JP., 2018. Platelet-Rich Plasma for Hair Loss. *Facial Plast. Surg. Clin. North Am.* 26(4): 469–85.

Bakacak M., Bostanci MS., İnanc F., Yaylali A., Serin S., Attar R.., *et al.,*2015. Protective Effect of Platelet Rich Plasma on Experimental Ischemia/Reperfusion Injury in Rat Ovary. *Gynecol. Obstet. Invest.* 81(3): 225–31.

Baksh N., Hannon CP., Murawski CD., Smyth NA., Kennedy JG., 2013. Platelet-rich plasma in tendon models: A systematic review of basic science literature. *Arthrosc. - J. Arthrosc. Relat. Surg.* 29(3): 596–607.

Barnett AH., 2006. Insulin glargine in the treatment of type 1 and type 2 diabetes. *Vasc. Health Risk Manag.* 2(1): 59–67.

Barrett EJ., 2017. Endocrine Regulation of Growth and Body Mass. In: Boron WF., Boulpaep EL (Ed.): *Medical Physiology*. 3rd ed: 990–1005. Elsevier, Philadelphia.

Bonert VS., Melmed S. (Ed.), 2017. Growth Hormone. *The Pituitary*. 4th ed: 85–127. Elsevier, London.

Bronson RA., 1999. Antisperm antibodies: a critical evaluation and clinical guidelines. *J. Reprod. Immunol.* 45(2): 159–83.

Carlson NE., Roach RB., 2002. Platelet-rich plasma. *J. Am. Dent. Assoc.*133(10): 1383–6.

Carver C., 2006. Insulin Treatment and the Problem of Weight Gain in Type 2 Diabetes. *Diabetes Educ.* 32(6): 910–917.

Castilla-Cortázar I., Gago A., Muñoz Ú., Ávila-Gallego E., Guerra-Menéndez L., Sádaba MC., García-Magariño M., *et al.,* 2015. Mechanisms Underlying Testicular Damage and Dysfunction in Mice With Partial IGF-1 Deficiency and the Effectiveness of IGF-1 Replacement Therapy. *Urology* 86(6): 1241–50.

Chemaitilly W., Sklar CA., 2007. Endocrine Complications of Hematopoietic Stem Cell Transplantation. *Endocrinol. Metab. Clin. North Am.* 36(4): 983–98.

Chen N-F., Sung C-S., Wen Z-H., Chen C-H., Feng C-W., Hung H-C., *et al.,* 2018. Therapeutic Effect of Platelet-Rich Plasma in Rat Spinal Cord Injuries. *Front. Neurosci.* 12(4): 1–12.

Clemmons DR., 2012. Metabolic Actions of Insulin-Like Growth Factor-I in Normal Physiology and Diabetes. *Endocrinol. Metab. Clin. North Am.* 41(2): 425–43.

Clemmons DR., 2016. Insulin-Like Growth Factor-1 and Its Binding Proteins∗. In: Jameson JL (Ed.) *Endocrinology: Adult and Pediatric*. 7th ed: 359–81. Elsevier, Philadelphia.

Crandal J., Shamoon H., 2016. Diabetes mellitus. In: Lee Goldman AIS (Ed.) *Goldman-Cecil Medicine*. 25th ed: 1527–48. Elsevier, Philadelphia.

Danial NN., Hockenbery DM., 2018. Cell Death. In: Hoffman R, Benz EJ, Silberstein LE, *et al.,* (Ed.) *Hematology : basic principles and practice*. 7th ed: 1870–84. Elsevier, Philadelphia.

de la Garza RG., Morales-Garza LA., Martin-Estal I., Castilla-Cortazar I., 2017. Insulin-Like Growth Factor-1 Deficiency and Cirrhosis Establishment. *J. Clin. Med. Res.* 9(4): 233–47.

Deeds MC., Anderson JM., Armstrong AS., Gastineau DA., Hiddinga HJ., Jahangir A., *et al.*, 2011. Single dose streptozotocin-induced diabetes: considerations for study design in islet transplantation models. *Lab. Anim.* 45(3): 131–40.

Devereaux J., Nurgali K., Kiatos D., Sakkal S., Apostolopoulos V., 2018. Effects of platelet-rich plasma and platelet-poor plasma on human dermal fibroblasts. *Maturitas* 117(7): 34–44.

Dhillon RS., Schwarz EM., Maloney MD., 2012. Platelet-rich plasma therapy - future or trend? *Arthritis Res. Ther.*14(4): 219–29.

Dichtel LE., Bjerre M., Schorr M., Bredella MA., Gerweck, A. V., Russell, B.M., *et al.,* 2018. The effect of growth hormone on bioactive IGF in overweight/obese women. *Growth Horm. IGF Res.* 40(10): 20–7.

Dimauro I., Grasso L., Fittipaldi S., Fantini C., Mercatelli N., Racca S., *et al.,* 2014. Platelet-Rich Plasma and Skeletal Muscle Healing: A Molecular Analysis of the Early Phases of the Regeneration Process in an Experimental Animal Model. *PLoS One.* 9(7): 1–13.

Dimitriadis G., Mitrou P., Lambadiari V., Maratou E., Raptis SA., 2011. Insulin effects in muscle and adipose tissue. *Diabetes Res. Clin. Pract.* 93(1): S52–S59.

Eleazu C., Eleazu K., Chukwuma S., Essien U., 2013. Review of the mechanism of cell death resulting from streptozotocin challenge in experimental animals, its practical use and potential risk to humans. *J. Diabetes Metab. Disord.* 12(1): 60.

El-Sharkawy H., Kantarci A., Deady J., Hasturk H., Liu H., Alshahat M., *et al.,* 2007. Platelet-Rich Plasma: Growth Factors and Pro- and Anti-Inflammatory Properties. *J. Periodontol.* 78(4): 661–9.

Escobar O., 2018. Pediatric Endocrinology. In: Zitelli BJ, McIntire SC., Nowalk AJ (Ed.) *Zitelli and Davis' Atlas of Pediatric Physical Diagnosis*. 7th ed: 341–377. Elsevier, Philadelphia.

Everts P a M., Knape JTA., Weibrich, G., Schönberger, J.P. a M., Hoffmann, J., Overdevest, E.P., *et al.,* 2006. Platelet-rich plasma and platelet gel: a review. *J. Extra. Corpor. Technol.* 38(2): 174–87.

Federer WT., 1977. *Statistics and Society: Data Collection and Interpretation*. 2nd ed. Marcel Dekker, New York.

Fernandez-Moure JS., Van Eps JL., Cabrera FJ., Barbosa Z., Medrano del Rosal G., *et al.,* 2017. Platelet-rich plasma: a biomimetic approach to enhancement of surgical wound healing. *J. Surg. Res.* 207: 33–44.

Fitzpatrick J., Bulsara MK., McCrory PR., Richardson MD., Zheng MH., 2017. Analysis of Platelet-Rich Plasma Extraction. *Orthop. J. Sport. Med.* 5(1): 1-8.

Gandhi A., Doumas C., O'Connor JP., Parsons JR., Lin SS., 2006. The effects of local platelet rich plasma delivery on diabetic fracture healing. *Bone* 38(4): 540–6.

Goodman SR., 2008. Programmed Cell Death. In: Goodman SR, Lundell AA., Richardson (Ed.) *Medical Cell Biology*. 3rd ed: 291–307.Elsevier, London.

Griffeth RJ., Bianda V., Nef S., 2014. The emerging role of insulin-like growth factors in testis development and function. *Basic Clin. Androl.* 24(1): 12.

Haughton CL., Dillehay DL., Phillips LS., 1999. Insulin replacement therapy for the rat model of streptozotocin-induced diabetes mellitus. *Lab. Anim. Sci.* 49(6): 639–44.

Italiano JE., Hartwig JH., 2018. Megakaryocyte and Platelet Structure. In: Hoffman R, Benz EJ, Silberstein LE, *et al.,* (Ed.) *Hematology*. 7th ed: 1857–69. Elsevier, Philadelphia.

Kang S., Song J., Kang H., Kim S., Lee Y., Park D., 2003. Insulin can block apoptosis by decreasing oxidative stress via phosphatidylinositol 3-kinase- and extracellular signal-regulated protein kinase-dependent signaling pathways in HepG2 cells. *Eur. J. Endocrinol.* 148(1): 147–55.

Karp G. (Ed), 2010. Aerobic Respiration and the Mitochondrion. *Cell and molecular biology: concepts and experiments*. 6th ed: 173–205. John Wiley, Hoboken.

Kaux JF., Croisier JL., Léonard P., Le Goff C., Crielaard JM., 2014. Exuberant inflammatory reaction as a side effect of platelet-rich plasma injection in treating one case of tendinopathy. *Clin. J. Sport Med.* 24(2): 150–2.

Kersten S., 2001. Mechanisms of nutritional and hormonal regulation of lipogenesis. *EMBO Report*. 2(4): 282–6.

Kianifard D., Sadrkhanlou RA., Hasanzadeh S., 2012. The ultrastructural changes of the Sertoli and Leydig cells following streptozotocin induced diabetes. *Iran. J. Basic Med. Sci.* 15(1): 623–35.

Kim MS., Lee D-Y., 2015. Insulin-like growth factor (IGF)-I and IGF binding proteins axis in diabetes mellitus. *Ann. Pediatr. Endocrinol. Metab.* 20(2): 69.

King AJ., 2012. The use of animal models in diabetes research. *Br. J. Pharmacol* 166(3): 877–94.

Koksal IT., Ishak Y., Usta M., Danisman A., Guntekin E., Bassorgun IC., *et al.,* 2007. Varicocele-Induced Testicular Dysfunction May Be Associated with Disruption of Blood-Testis Barrier. *Arch. Androl.* 53(1): 43–8.

Kong W-Y., Tong L-Q., Zhang H-J., Cao Y-G., Wang G-C., Zhu J-Z., *et al.,* 2016. The calcium-sensing receptor participates in testicular damage in streptozotocin-induced diabetic rats. *Asian J. Androl.* 18(5): 803–8.

Kotsovilis S., Markou N., Pepelassi E., Nikolidakis D., 2010. The adjunctive use of platelet-rich plasma in the therapy of periodontal intraosseous defects: a systematic review. *J. Periodontal Res.* 45(3): 428–43.

Kubota G., Kamoda H., Orita S., Yamauchi K., Sakuma Y., Oikawa Y., *et al.,* 2017. Platelet-rich plasma enhances bone union in posterolateral lumbar fusion: A prospective randomized controlled trial. *Spine J.* : 1–7.

Lenzen S., 2008. The mechanisms of alloxan- and streptozotocin-induced diabetes. *Diabetologia* 51(2): 216–26.

Levy GM., Lucas P., Hope N., 2018. Efficacy of a platelet-rich plasma injection for the treatment of proximal hamstring tendinopathy: A pilot study. *J. Sci. Med. Sport* : 6–11.

Lian Z., Yin X., Li H., Jia L., He X., Yan Y., *et al.,* 2014. Synergistic Effect of Bone Marrow-Derived Mesenchymal Stem Cells and Platelet-Rich Plasma in Streptozotocin-Induced Diabetic Rats. *Ann. Dermatol.* 26(1): 1–10.

Lyras DN., Kazakos K., Agrogiannis G., Verettas D., Kokka A., Kiziridis G., *et al.,* 2010. Experimental study of tendon healing early phase: Is IGF-1 expression influenced by platelet rich plasma gel? *Orthop. Traumatol. Surg. Res.* 96(4): 381–7.

Ma R., Schaer M., Hogan M., Demange M., Rodeo SA.,2015. Orthobiologics: Clinical Application of Platelet-Rich Plasma and Stem Cell Therapy. In: Miller MD., Thompson SR (Ed.) *DeLee & Drez's Orthopaedic Sports Medicine*. 4th ed: 55–65. Elsevier, Philadelphia.

Martínez-Zapata MJ., Martí-Carvajal A., Solà I., Bolibar I., Ángel Expósito J., Rodriguez L., *et al.,* 2009. Efficacy and safety of the use of autologous plasma rich in platelets for tissue regeneration: a systematic review. *Transfusion* 49(1): 44–56.

Marx RE., Carlson ER., Eichstaedt RM., Schimmele SR., Strauss JE., Georgeff KR., 1998. Platelet-rich plasma. *Oral Surgery, Oral Med. Oral Pathol. Oral Radiol. Endodontology* 85(6): 638–46.

Matsumoto AM., Bremner WJ., 2016. Testicular Disorders. In: Melmed S, Polonsky KS, Larsen PR, *et al.,* (Ed.) *Williams Textbook of Endocrinology*. 13th ed: 694–784. Elsevier, Philadelphia.

Mescher AL., 2016. *Junqueira's Basic Histology text and atlas*. 14th ed. McGraw-Hill, New York.

Morsy M., Ramzy M., El-Sheikh AK., Kamel M., Abdelwahab S., 2014. Mechanism of testicular protection of carvedilol in streptozotocin-induced diabetic rats. *Indian J. Pharmacol*. 46(2): 161–5.

Murdiastuti K., Tangsupati P., 2018. Effect of Collagen -Activated Platelet-Rich Plasma to Synthesis of Extracellular Matrix in Fibroblast of Periodontal Ligament. *Adv. in Health Sci. Res.* 4: 288–97.

Nadkarni P., Weinstock RS., 2016. Carbohydrates. In: McPherson RA., Pincus MR (Ed.) *Henry's Clinical Diagnosis and Management by Laboratory Methods*. 23rd ed. Elsevier, Missouri.

Nambam B., Schatz D., 2018. Growth hormone and insulin-like growth factor-I axis in type 1 diabetes. *Growth Horm. IGF Res.* 38: 49–52.

Olchosky D., Bruno JF., Gelato MC., Song J., dan Berelowitz, M., 1991. Pituitary Insulin-Like Growth Factor-I Content and Gene Expression in the Streptozotocin-Diabetic Rat: Evidence for Tissue-Specific Regulation*. *Endocrinology* 128(2): 923–8.

Ossipov MH., Porreca F., 2013. Animal Models of Experimental Neuropathic Pain. In: McMahon SB (Ed.) *Wall & Melzack's Textbook of Pain*. 6th ed: 924–51. Elsevier, Philadelphia.

Ozkurkcugil C., Yardimoglu M., Dalcik H., Erdogan S., Gokalp A., 2004. Effect of insulin-like growth factor-1 on apoptosis of rat testicular germ cells

induced by testicular torsion. *BJU Int.* 93(7): 1094–7.

Oztan MO., Arslan FD., Oztan S., Diniz G., Koyluoglu G., 2018. Effects of topical application of platelet-rich plasma on esophageal stricture and oxidative stress after caustic burn in rats: Is autologous treatment possible? *J. Pediatr. Surg.*: 1–8.

Patel D., Kumar R., Laloo D., Hemalatha S., 2012. Diabetes mellitus: An overview on its pharmacological aspects and reported medicinal plants having antidiabetic activity. *Asian Pac. J. Trop. Biomed*. 2(5): 411–20.

Pavlovic V., Ciric M., Jovanovic V., Stojanovic P., 2016. Platelet Rich Plasma: a short overview of certain bioactive components. *Open Med.* 11(1): 242–7.

Puche JE., Castilla-Cortázar I., 2012. Human conditions of insulin-like growth factor-I (IGF-I) deficiency. *J. Transl. Med.* 10(1): 1–29.

Rand ML., Israels SJ., 2018. Molecular Basis Of Platelet Function. In: Hoffman R, Benz EJ, Silberstein LE, *et al.,* (ed.) *Hematology : basic principles and practice*. 7th ed. pp: 1870–84. Elsevier, Philadelphia.

Sacks DB., 2018. Diabetes Mellitus. In: Rifai N (Ed.) *Tietz Textbook of Clinical Chemistry and Molecular Diagnostics*. 6th ed: 1160–200. Elsevier, Missouri.

Sadagurski M., White MF., 2013. Integrating Metabolism and Longevity Through Insulin and IGF1 Signaling. *Endocrinol. Metab. Clin. North Am.* 42(1): 127–48.

Said TM., 2004. Role of caspases in male infertility. *Hum. Reprod. Update* 10(1): 39–51.

Salem A., Tawfik AM., 2016. Role of Platelet Rich Plasma in Treatment of Diabetic Foot Ulcers. *Surg. Sci.*7(6): 272–7.

Scridon A., Perian M., Marginean A., Fisca C., Vantu A., Ghertescu D., *et al.,* 2015. Wistar rats with long-term streptozotocin-induced type 1 diabetes mellitus replicate the most relevant clinical, biochemical, and hematologic features of human diabetes / Sobolanii Wistar cu diabet zaharat tip 1 indus cu streptozotocina reproduc cele mai . *Rev. Rom. Med. Lab.* 23(3): 263–74.

Sekerci CA., Tanidir Y., Sener TE., Sener G., Cevik O., Yarat A., *et al.,* 2017. Effects of platelet-rich plasma against experimental ischemia/reperfusion injury in rat testis. *J. Pediatr. Urol.* 13(3): 1–28.

Setta SH., Elshahat A., Elsherbiny K., Massoud K., Safe I., 2011. Platelet-rich plasma versus platelet-poor plasma in the management of chronic diabetic foot ulcers: a comparative study. *Int. Wound J.* 8(3): 307–12.

Shi G., Li Z-M., Zheng J., Chen J., Han X., Wu J., *et al.,* 2017. Diabetes associated with male reproductive system damages: Onset of presentation, pathophysiological mechanisms and drug intervention. *Biomed. Pharmacother.* 90: 562–74.

Shi G-J., Zheng J., Wu J., Qiao H-Q., Chang Q., Niu Y., *et al.,* 2017. Beneficial effects of Lycium barbarum polysaccharide on spermatogenesis by improving antioxidant activity and inhibiting apoptosis in streptozotocin-induced diabetic male mice. *Food Funct.* 8(3): 1215–26.

Shiomi T., Tsutsui H., Ikeuchi M., Matsusaka H., Hayashidani S., Suematsu N., *et al.,* 2003. Streptozotocin-induced hyperglycemia exacerbates left ventricular remodeling and failure after experimental myocardial infarction. *J. Am. Coll. Cardiol.* 42(1): 165–72.

Sisman AR., Kiray M., Camsari UM., Evren M., Ates M., Baykara B., *et al.,* 2014. Potential Novel Biomarkers for Diabetic Testicular Damage in Streptozotocin-Induced Diabetic Rats: Nerve Growth Factor Beta and Vascular Endothelial Growth Factor. *Dis. Markers*: 1–7.

Skinner MK., Nilsson EE., Bhandar RK., 2011. Cell–Cell Signaling in the Testis and Ovary. In: Dennis EA., Bradshaw RA (Ed.) *Intercellular Signaling in Development and Disease*. 1st ed: 125–40. Elsevier, New York.

Stanley TL., Feldpausch MN., Murphy CA., Grinspoon SK., Makimura H., 2014. Discordance of IGF-1 and GH stimulation testing for altered GH secretion in obesity. *Growth Horm. IGF Res.* 24(1): 10–5.

Styne DM., Grumbach MM., 2016. Physiology and Disorders of Puberty. In: Melmed S, Polonsky KS, Larsen PR, *et al.,* (Ed.) *Williams Textbook of Endocrinology*. 13th ed: 1074–218. Elsevier, Philadelphia.

Takase F., Inui A., Mifune Y., Sakata R., Muto T., Harada Y., *et al.,* 2017. Effect of platelet-rich plasma on degeneration change of rotator cuff muscles: In vitro and in vivo evaluations. *J. Orthop. Res.* 35(8): 1806–15.

Tian J., Lei XX., Xuan L., Tang J.B., Cheng B., 2018. The effects of aging, diabetes mellitus, and antiplatelet drugs on growth factors and anti-aging proteins in platelet-rich plasma. *Platelets* : 1–7.

Tortora GJ., Derrickson B., 2014. *Principles of Anatomy and Physiology*. 14th ed. John Wiley, Hoboken.

Valeriy Z., Olena Kholodkova., Olena Kuleshova., 2010. Platelet-rich plasma induces morphofunctional restoration of mice testes following doxorubomycine hydrochloride exposure. *J. Exp. Clin. Med.* 31: 183–7.

Wang CY., Li XD., Hao ZH., Xu D., 2016. Insulin-like growth factor-1 improves diabetic cardiomyopathy through antioxidative and anti-inflammatory processes along with modulation of Akt/GSK-3β signaling in rats. *Korean J. Physiol. Pharmacol.* 20(6): 613.

Wang G., Hardy MP., 2004. Development of Leydig Cells in the Insulin-Like Growth Factor-I (IGF-I) Knockout Mouse: Effects of IGF-I Replacement and Gonadotropic Stimulation1. *Biol. Reprod*. 70(3): 632–9.

Wang Z., Xiong L., Wang G., Wan W., Zhong C., Zu H., 2017. Insulin-like growth factor-1 protects SH-SY5Y cells against β-amyloid-induced apoptosis via the PI3K/Akt-Nrf2 pathway. *Exp. Gerontol.*87: 23–32.

Wasterlain AS., Braun HJ., Harris AHS., Kim H., Dragoo JL., 2013. The Systemic Effects of Platelet-Rich Plasma Injection. *Am. J. Sports Med.* 41(1): 186–93.

White MF., Copps KD., 2016. The Mechanisms of Insulin Action. In: Jameson JL (Ed.) *Endocrinology: Adult and Pediatric*. 7th ed: 556–85. Elsevier, Philadelphia.

Woelfle J., Chia DJ., Massart-Schlesinger MB., Moyano P., Rotwein P., 2005. Molecular physiology, pathology, and regulation of the growth hormone/insulin-like growth factor-I system. *Pediatr. Nephrol.* 20: 295–302.

Wolfe RR., 2000. Effects of insulin on muscle tissue. *Curr. Opin. Clin. Nutr. Metab. Care* 3(1): 67–71.

Wu PIK., Diaz R., Borg-Stein J., 2016. Platelet-Rich Plasma. *Phys. Med. Rehabil. Clin. N. Am.* 27(4): 825–53.

Yoon MJ., Roser JF., 2010. Insulin-like growth factor-I (IGF-I) protects cultured equine Leydig cells from undergoing apoptosis. *Anim. Reprod. Sci.* 122(3–4): 353–8.

Zhu, Y., Yuan M., Meng HY., Wang AY., Guo QY., Wang Y., *et al.,* 2013. Basic science and clinical application of platelet-rich plasma for cartilage defects and osteoarthritis: a review. *Osteoarthr. Cartil.* 21(11). 1627–37.