

REVIEW ARTICLE

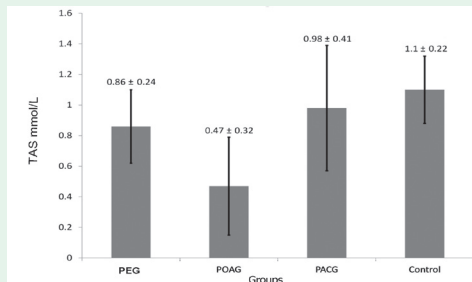
Combining antiangiogenic therapy and radiation in nasopharyngeal carcinoma

This study discusses the mechanisms of the synergistic effect of antiangiogenic therapy with radiation therapy in metastatic nasopharyngeal carcinoma (NPC), and reviews the data supporting this strategy as a promising treatment for metastatic NPC. The complicated mechanisms between antiangiogenic agents and radiation involve many interactions between the cancer cells, vasculature, and cancer stroma. The proliferation and metastasis of cancer depends on angiogenesis, while rapid growth of cancers will cause hypoxia, which contributes to radioresistance. Antiangiogenic agents can modulate the cancer blood flow and oxygenation through target cancer vasculature, leading to increased radiosensitivity.

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ORIGINAL ARTICLES

Association of total antioxidants level with glaucoma type and severity



Mean \pm standard deviation of total antioxidant concentration for different types of glaucoma. PEG - pseudoexfoliation glaucoma, POAG - primary open angle glaucoma, PACG - primary angle closure glaucoma, TAS - total antioxidant status

Mousa et al conclude that plasma total antioxidant status (TAS) levels are decreased in patients with glaucoma, more so in primary open angle glaucoma (POAG) and pseudoexfoliation glaucoma than primary angle closure glaucoma (PACG), supporting the hypothesis that decreased antioxidative defense and/or increased oxidative stress may have a critical role in the pathogenesis of glaucoma. They found that there was a significant correlation between TAS and age at onset (Pearson correlation coefficient [R] 0.17, $p < 0.0001$), cup/disc ratio (R: -0.13, $p = 0.004$), and number of anti-glaucoma medications (R: -0.16, $p = 0.001$). Moreover, the TAS levels were significantly different across the 3 types of glaucoma: 0.86 ± 0.24 in PEG, 0.47 ± 0.32 in POAG, and 0.98 ± 0.41 in PACG (all $p < 0.0001$).

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Impact of maternal and neonatal factors on parameters of hematopoietic potential in umbilical cord blood

Variable	Mean	Median	Range
Volume (ml)	78.51	75.50	50.4 - 192.4
Total nucleated cells ($\times 10^6$ /unit)	1853.2	1500.6	500.2 - 9430.3
CD45 ($\times 10^6$ /unit)	8.261	7.645	3.36 - 88.72
CD34 ($\times 10^6$ /unit)	2.201	1.63	1.25 - 12.82
Nucleated RBC ($\times 10^6$ /unit)	820.72	464.1	0 - 7741.23
Viability (%)	94.53	96.0	85 - 99

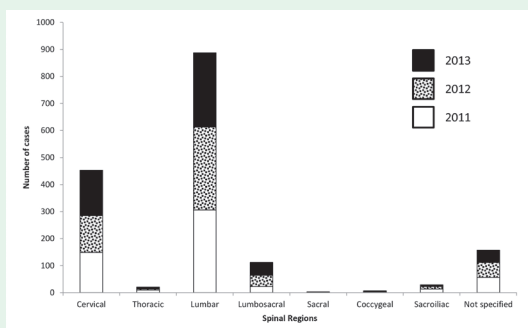
CD - cluster of designation, RBC - red blood cell

Summary of 206 laboratory results umbilical cord blood units (donor and baby) from the cord blood bank

Al-Deghaither concludes that in the selection and identification of a possible donor of umbilical cord blood, several maternal and neonatal factors should be considered, as younger maternal age, neonatal birth weight > 3300 grams, larger placental size, and first or second-born babies, were shown to be associated with higher total nucleated cells (TNC's), cluster designation (CD)34⁺, CD45⁺, nucleated red blood cells (NRBCs) count, and viability. The volume was positively affected by bigger birth weight of the baby ($p < 0.0001$), larger placenta ($p = 0.001$), TNCs ($p < 0.0001$), CD34⁺ ($p < 0.0001$), NRBCs ($p < 0.0001$), and viability ($p = 0.002$). There were no statistically significant differences between baby boys and girls for laboratory variables.

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Prevalence of spinal disorders and their relationships with age and gender



Numbers of disorders categorized by spinal region and year

Alshami concludes that spinal disorders were common compared with other disorders. Low back pain and neck pain were the most common spinal disorders. Age and gender were weakly related to some of the disorders that affected the lumbar and cervical spine. The most common disorders affected the lumbar spine (53.1%) and cervical spine (27.1%), and pain was the most common disorder. Neck pain (60.5%) was more common in patients < 30 years old ($p < 0.001$). Cervical spondylosis was common ($\sim 30\%$) in the > 30 age groups. Spondylosis and low back pain were more prevalent in women (7.8% and 76.2%) than in men (73.9% and 3.3%).

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