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Researchers report benefits of new standard treatment study for rare pediatric brain cancer

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SAO PAULO, BRAZIL — A team of researchers led by The University of Texas M. D. Anderson Cancer Center unveiled results today from the largest-ever collaborative study addressing the treatment of a rare pediatric brain tumor. The findings suggest a new standard protocol could improve survival nearly two-fold for pediatric patients with choroid plexus tumors, as reported at the 41st Annual Meeting of the International Society of Pediatric Oncology (SIOP).

Johannes Wolff, M.D., professor in the Children's Cancer Hospital at M. D. Anderson Cancer Center and lead investigator on the study, revealed that the protocol, consisting of three chemotherapy agents and radiation, had projected overall survival rates of 93 percent at one year, 82 percent at five years, and 78 percent at eight years.

"This SIOP 2000 study started 10 years ago and has grown to include more than 100 institutions from more than 20 countries," said Wolff. "With the data we have, we can tell which patients are prone to do better and which ones have a poor prognosis. In addition, we've established a promising standard protocol for these patients."

Choroid plexus carcinomas are malignant brain tumors that originate in the choroid plexus epithelium, which is the gland that produces cerebrospinal fluid. Often the tumors may block the flow of cerebrospinal fluid causing pressure to build in the brain and possibly

enlarge the skull. It is a very rare tumor affecting approximately 1,500 children worldwide each year, occurring more often in infants.

Due to the rarity of the disease, there is no standard treatment protocol for the disease, but Wolff and other international researchers hope to change that through their studies. They also developed an innovative statistical module for institutions to use that will ensure quality and efficient data coming out of the study.

One surprising finding Wolff and fellow researchers discovered contradicted historical research, which originally showed the significant advantage of complete surgical resection. The SIOP 2000 study found that patients receiving the intense chemotherapy protocol had similar outcomes as those with complete resection, reducing the need for surgical treatment.

"We think the better outcomes had to do with the fact that physicians will prolong chemotherapy treatment if there is residual tumor," said Wolff. "If we can prove this hypothesis, this would be an argument for extending treatment in the future."

Wolff says the next step will be to begin another study that will investigate a four-armed chemotherapy protocol. This would investigate the possibility of adding another chemotherapy to further improve survival rates. The SIOP 2000 study used carboplatinum, etoposide and cyclophosamide in combination with radiation.

Source: University of Texas M. D. Anderson Cancer Center (news : web)