

Management of Ewing sarcoma family of tumors: Current scenario and unmet need

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Abstract: (200 words)

Ewing sarcoma family tumors (ESFT) are heterogeneous, aggressive group of disease with peak incidence in adolescent and young adults. The outcome has been improved dramatically from 10% with surgery and radiotherapy alone to 65%-70% now, in localized disease, with the introduction of chemotherapy.

Chemotherapy regimen evolved from single agent to multiagent with effort of many cooperative clinical trials over decades. The usual treatment protocol include introduction of multi-agent chemotherapy in neoadjuvant setting to eradicate systemic disease with timely incorporation of surgery and/or radiotherapy as local treatment modality and further adjuvant chemotherapy to prevent recurrence. Risk adapted chemotherapy in neoadjuvant and adjuvant setting along with radiotherapy has been used in many international collaborative trials and has resulted in improved outcome, more so in patients

with localized disease. The role of high dose chemotherapy with stem cell rescue is still debatable. The outcome of patients with metastatic disease is dismal with long term outcome ranges from 20%-40% depending on the sites of metastasis and intensity of treatment. There is a huge unmet need to improve outcome further, more so in metastatic setting. Novel therapy targeting the molecular pathways and pathogenesis of ESFT is very much required. Here we have discussed the current standard of management in patients with ESFT, investigational targeted or novel therapies along with future promises.

Even with current armamentarium the outcome of ESFT patients with metastatic disease is dismal with cure rate varying between 20%-40% [2,3] and even less in those with recurrent/refractory diseases. The current emphasis is to improve the survival outcome in ESFT patients with metastatic

disease and also in the recurrent setting. There is a vacuum in novel and targeted therapies as compared to adult solid tumors, and there lies a huge unmet need to improve the outcome of poor risk ESFTs.

Biography:(200word)



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About University: (200 words)



All India Institute of Medical Sciences, New Delhi is a public hospital and medical Research University based in New Delhi, India. The institute is governed By the AIIMS Act, 1956 and operate autonomously under the Ministry of Health and Family Welfare. The idea of AIIMS arose in 1946, after a recommendation by the Health Survey of the Government of India. From then to the Establishment and Development of AIIMS over the ensuing Years, several Illustrious Individuals played their part in bringing the idea to fruition.

Importance of Research:(200 words)

ESFTs are a rare aggressive tumor with high rate of metastasis at presentation and high incidence of recurrence. The outcome of those with localized improved to 70% after multimodality approach mainly by better understanding of disease biology, risk adapted

chemotherapeutic approach, timely incorporation of local therapy, and improvement in technology. But, the outcome of those with metastatic and recurrent disease is dismal and no significant advancement has been made in these patients to improve outcome in last four decades. The overall improvement in outcome of ESFT has been made through the tremendous efforts of researcher, clinicians all over the world, better liaison between all the stakeholders of treating team, and collaborative international research in a huge number of cases. The main challenge now remains in preventing recurrence, preventing drug resistance, reducing therapy related long-term toxicities and improving outcome in those with metastatic and relapsed/recurrent disease. No potential biomarker has been identified so far to predict therapeutic efficacy of chemotherapeutic agents and predicting recurrences.

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