

Kummoona Jaw Lymphoma, Clinical Pathological Entity

Raja Kummoona*

Emeritus Professor of Craniofacial Surgery Iraqi Board for Medical Specialization, Baghdad, Iraq

***Corresponding author:** Raja Kummoona, Emeritus Professor of Craniofacial Surgery Iraqi Board for Medical Specialization, Baghdad, Iraq

Citation: Kummoona R. (2024) Kummoona Jaw Lymphoma, Clinical Pathological Entity. J Stem Cell Res. 5(1):1-14.

Received: March 12, 2024 | **Published:** March 15, 2024

Copyright© 2024 genesis pub by Kummoona R. CC BY-NC-ND 4.0 DEED. This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial-No Derivatives 4.0 International License. This allows others to distribute, remix, tweak, and build upon the work, even commercially, as long as they credit the authors for the original creation

Introduction

Kummoona jaw lymphoma, highly malignant tumor, affects children between the ages of 2-8 years (mean 5 years), twenty-nine cases were reported (17 male and 12 females). Duration of illness ranges between 3-8 years. It is a rapid growth tumor associated with high temperature, anemia with high ESR. The patient looks toxic and very ill, it seems these patients through series stages of debilitating status affecting the low socioeconomic groups of people.

The tumors developed in the odontogenic tissues in the cancellous bones of the children's jaws by an oncogenic virus which is not EBV but by herpes-like virus invasion. This disease was lethal. Only 3 children survived of stage I and stage II with death rates of 93.3%. Cancer is a disastrous disease for humanity, most cases expecting death especially in children. Clinical cases presenting as very rapid growth, fleshy with friable tissues and bleeding spots on the surface affecting one side or both sides of the maxilla or mandible and some cases showed both upper and lower jaws involved by tumors with early metastasis to the brain or viscera.

Materials and Methods

We reported in these studies 29 cases of Kummoona Jaw Lymphoma, 17 male and 12 females. Their ages

Editorial | Kummoona R. J Stem Cell Res. 2024, 5(1)-55.

DOI: [https://doi.org/10.52793/JSCR.2024.5\(1\)-55](https://doi.org/10.52793/JSCR.2024.5(1)-55)

between 2-8 years, these cases were presented with massive growth tumours effecting the maxilla or mandible or both. Each case showing sever illness of the general condition, they look very ill, anaemic and toxic.

We staging the diseases into 4 stages for purpose of therapeutic managements.

Stage I tumours involve one quadrant of maxilla or mandible.

Stage II tumours involves both jaws upper and lower jaws either by two or one quadrant.

Stage III jaws tumours extend to the brain.

Stage IV jaw tumours involve the jaws with visceral metastasis.

Radiological examination included chest X-ray to exclude mediastinal and lung metastasis, every child was examined the abdomen by CT scan to exclude visceral metastasis of retro peritoneal and para-aortic and mesenteric lymph nodes or ovaries or kidneys and other organs. Serological studies revealed EBV serology characterised by increase of anti-body titters to Epstein Barr Nuclear Antigen (EBNA), early antigen (EA), and virus capsid antigen (VCA).

In some other cases, the profile was relatively high anti-VCA titter with the EBV associated Burkitt's Lymphoma but the presence of low anti-EA and negative anti EBNA titter did not allow a definite conclusion to be made

Post-Mortems Studies:

Gross anatomy and post-mortem studies showed extensive masses involved the terminal ilium and para-aortic and mesenteric lymph nodes. Jaws tumours showed an extensive growth of soft friable tissues with bleeding spots on the mucosa with sever destruction of alveolar bone and floating teeth.

For Pathological Studies: The following techniques been applied

Cytogical, Light microscope for (H&E), Ground sections and Electron Microscope:

Imprint cytology

A quick technique by Gamesa stain for diagnosis of jaw lymphoma, usually showed lymphoblastic cells darkly stained due to high ribonucleic acid and cytoplasmic vacuoles due to high lipid content.

Light cicroscope

The histological picture by (H&E) starry sky pattern of uniform lymphoid cells exhibiting intense cytoplasmic pyronin philia.

Ground sections

Plastic section technique was used showed lymphoblastic lymphoma. The cytoplasm of the cells was

darkly stained due to high ribonucleic acid content. The cytoplasm rim showed tiny vacuoles visibly belong to fat droplets seen with fat stain, apoptotic changes of lymphoblastic cells was also seen.

Electron Microscopy

The general features of the cells of Kummoona Jaw Lymphoma is oval, round or elongated cell with high nucleus-cytoplasmic ratio with invagination in the nuclear membrane and chromatin clumps aggregated around the nuclear membrane, the mitochondria not well developed and some showed marked swelling, cytoplasmic process were observed as assign of apoptosis. Virus like structure was observed in the nucleus and cytoplasm, some cells showed double nuclei or convoluted shape, vacuoles seen due to high content of lipid and debris. A massive amount of collagen fibres with rough endoplasmic reticulum was partially dilated some losing ribosome. Virus particles has a distinct body and were not EBV rather similar to herpes simplex virus.

Therapeutics Managements

Therapeutics managements of Kummoona Jaw Lymphoma (KJL) differ from that Burkitt's Lymphoma (BJL), this tumour has been treated with few courses of cyclophosphamide 40mg/m² while Kummoona Jaw lymphoma cases were treated by a complicated therapeutic management.

The therapy uses an intravenous combination of vincristine 1.5mg/m², Adriamycin 50mg/m², cyclophosphamide 1000mg/m², methotrexate 10mg/m² and prisolone 50mg/m² in 8 doses and the duration of therapeutic managements extend to 20 weeks.

Fellow up of the cases required including CSF and bone marrow investigations to exclude lymphoblastic leukaemia and other vital investigation.

In Conclusion

Kummoona jaw Lymphoma a highly lethal malignant tumours effecting children at range of 2-8 years we hope further research to be done for better understanding of this dreadful disease