Fetal transplantation was performed at the following gestational ages: 35, 40, 47, 52, 58, 64, 71, 80 days. Hemoglobin.

Xenogeneic donor cells: 2X10^6 CD34 purified normal human bone marrow.

Engraftment: In utero transplantation was performed using allogeneic and xenogeneic donor cells. Engraftment:

Engraftment window.

Immune ontogeny: CD45 expression

Immune ontogeny: IgM & CD45 expression

Conclusions

1. Pluripotent disease is common in patients with rheumatoid arthritis although usually of little or transient clinical significance. Severe longstanding disabling pleural disease is uncommon although empyema is a common complication.

2. Our patient had longstanding pleural disease not responsive to methotrexate and tumor necrosis factor inhibition.

3. Pathologic findings included a thickened fibrinous pleura with evidence for chronic inflammation, palisaded histiocytes and multinucleated giant cells all characteristic of rheumatoid pleural disease.

4. Rituximab treatment resulted in symptomatic improvement, closing of the open wound that remained long after chest tube removal. Laboratory improvement was also noted.

5. B cells (CD19 & CD20+ cells) were not seen at 6 and 10 months following rituximab therapy. Circulating immunoglobulin levels were minimally affected following rituximab therapy (data not shown).

6. The role of rituximab in treating extra-articular manifestations of rheumatoid arthritis should be explored.

References and Acknowledgements

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6. The authors thank and note the assistance of S Parks, Professor of Pathology at the University of Nevada.