

Gadolinium traces in HSCT pediatric recipients

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Conflicts of Interest

No conflicts of interest reported.

OUR EXPERIENCE

- We found gadolinium in different tissues
- We found a colocalization of gadolinium and iron
- We documented a gadolinium reduction after deferoxamine treatment

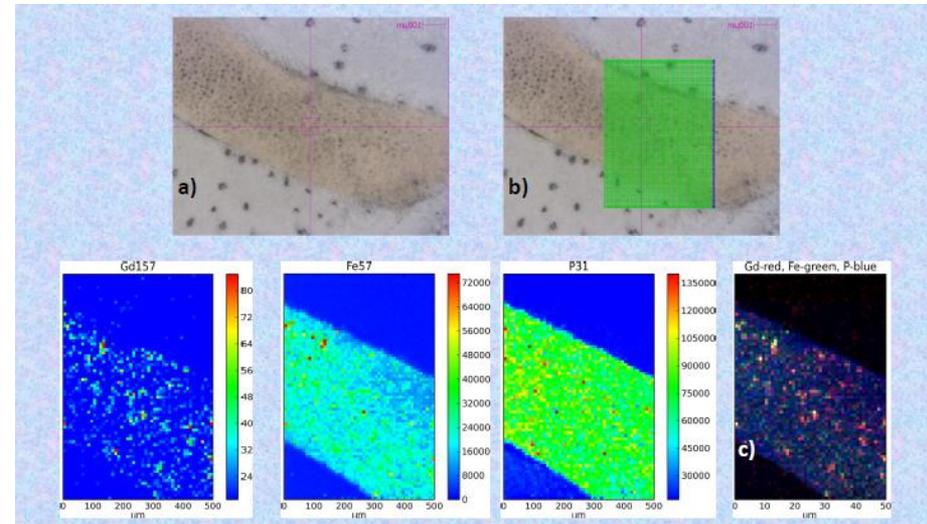
Table 5

Gadolinium Liver Concentration and Iron Chelation Therapy

Patient No.	First Biopsy ($\mu\text{mol/g}$)	Second Biopsy ($\mu\text{mol/g}$)	Third Biopsy ($\mu\text{mol/g}$)	Type of ICT	ICT Duration (wk)	LIC at First Biopsy ($\mu\text{mol/g}$)*	LIC at Last Biopsy ($\mu\text{mol/g}$)*
Patient 3	0.56	0.16	...	DFO	8	70	55
Patient 6	0.22	0.29	...	DFX	104.3	280	120
Patient 7	0.28	0.39	0.37	Phlebotomy	104.3	80	10
Patient 12	0.63	0.56	0.68	Phlebotomy	52.1	190	250
Patient 15	0.93	0.25	...	DFO	10	200	240
Patient 16	0.96	0.46	...	DFO	7	190	170
Patient 19	0.49	<0.01	...	DFO	14	350	350
Patient 20	0.28	0.12	...	DFO	9	270	230

Note.—Patients had high GLC and serial biopsies. ICT = iron chelation therapy, DFO = deferoxamine, DFX = deferasirox.

* MR imaging evaluation, normal ranges (<36 $\mu\text{mol/g}$).



Gaps in our study

- Small patient cohort and control group
- Analysis based only on bioptic samples
- Retrospective study

What we are looking for

- Is gadolinium deposition intracellular or extracellular?
- In which form Gadolinium is stored in tissue?
- Which is the removal mechanism of gadolinium during deferoxamine treatment?