

Supplementary Material

1 Supplementary Data

1.1 Age & referral

- 16y Recurrence, Post-Transplant Lymphoproliferative Disorder (PTLD)
17y Treatment control, bilateral germ cell tumors in the ovaries + multiple vascular thrombi
5y Treatment control, adrenocortical carcinoma with liver recurrence
10y Recurrence, hepatoblastoma + residual disease in scapula
13y Primary diagnosis, vertebral tumor with neuroforaminal involvement
15y Recurrence, anaplastic large cell lymphoma
15y Treatment control, mediastinal germ cell tumor + thrombosis of subclavian vein
10y Primary diagnosis, occult tumor in the lung
14y Primary diagnosis, occult malignancy
15y Treatment control, nasopharyngeal cancer
15y Treatment control, disseminated and refractory osteogenic sarcoma
10y Primary diagnosis, osteomyelitis in the jaw + tuberculosis
2y Primary diagnosis, occult cancer in the small pelvis
10y Treatment control, lymphoma
13y Primary diagnosis, occult tumor in thoracic vertebra (Th1) seen on MR
16y Treatment control, melanocytic tumor
10y Recurrence, hepatoblastoma
13y Recurrence, sarcoidosis
10y Treatment control, Burkitt's lymphoma
10y Primary diagnosis, Hodgkin's lymphoma + nodular sclerosis
11y Treatment control, sarcoma
17y Recurrence /treatment control, medulloblastoma
8y Primary diagnosis, chronic lymphadenitis + intermittent fever
16y Treatment control, alveolar rhabdomyosarcoma
8y Primary diagnosis, abscess/endocarditis/salmonella
14y Treatment control, Hodgkin's lymphoma
7y Recurrence, infection with salmonella
16y Primary diagnosis, lung abscess
17y Primary diagnosis, residual fever
16y Treatment control, Hodgkin's lymphoma
14y Recurrence, lymphadenopathy + Griscelli syndrome + hemophagocytosis
16y Primary diagnosis, infection of spinal implant
17y Staging, lymphoma
15y Treatment control, lymphoma
15y Treatment control, osteogenic sarcoma
2y Treatment control, alveolar rhabdomyosarcoma
14y Primary diagnosis, PTLD + Epstein-Barr virus
2y Treatment control, disseminated alveolar rhabdomyosarcoma
16y Primary diagnosis, sarcoma
5y Treatment control, adrenocortical carcinoma with liver recurrence
6y Treatment control, Langerhans cell histiocytosis
16y Recurrence, alveolar rhabdomyosarcoma left arm
16y Treatment control, Hodgkin's lymphoma
0.25y Primary diagnosis, sarcoma
17y Treatment control, Hodgkin's lymphoma
10y Treatment control, hepatoblastoma
4y Primary diagnosis, osteomyelitis

- 13y *Primary diagnosis, endocarditis with extra-cardial foci*
- 16y *Staging, multifocal infiltrations suspect of malignancy on MR*
- 10y *Treatment control, Hodgkin's lymphoma*

1.2 Total list of anatomical sites

Organs

- 1 *Brain*
- 2 *Oro/naso/hypopharynx/larynx*
- 3 *Thyroid gland*
- 4 *Lung, right*
- 5 *Lung, left*
- 6 *Pleura, right*
- 7 *Pleura, left*
- 8 *Breast, right*
- 9 *Breast, left*
- 10 *Esophagus*
- 11 *Liver*
- 12 *Pancreas*
- 13 *Adrenal gland, right*
- 14 *Adrenal gland, left*
- 15 *Kidney, right*
- 16 *Kidney, left*
- 17 *Spleen*
- 18 *Stomach*
- 19 *Bowel*
- 20 *Peritoneal*
- 21 *Ovary, right*
- 22 *Ovary, left*
- 23 *Uterus*
- 24 *Cervix*
- 25 *Vagina/vulva*
- 26 *Prostate*
- 27 *Penis/scrotum*
- 28 *Bones*
- 29 *Cutis/skin*
- 30 *Other*

Lymphnodes

- 31 *Head/neck, right*
- 32 *Head/neck, left*
- 33 *Axilla/subpect, right*
- 34 *Axilla/subpect, left*
- 35 *Mediastinum/hilar/retrocrural*
- 36 *Int mam, precardiac*
- 37 *Retroperitoneal*
- 38 *Abdominal*
- 39 *Iliac, right*
- 40 *Iliac, left*
- 41 *Groin, right*
- 42 *Groin, left*
- 43 *Lnn, other*

2 Supplementary Tables

2.1 Summary of statistical results from the evaluation of lesion detection.

SUPPL. TABLE 2.1 Summary of statistical results from the evaluation of lesion detection.

Acquisition grouping	Friedman's test	Corresponding pairs	Wilcoxon signed rank test
Total Findings	Significant		
Time dependent acquisitions	Significant	F150s – F300s	Significant
		F150s – F600s	Significant
		F300 – F600s	Not significant
Filter/iteration dependent acquisitions	Not significant	-	-
Organ Findings	Not significant		
Time dependent acquisitions	NA	-	-
Filter/iteration dependent acquisitions	NA	-	-
Lymph node Findings	Significant		
Time dependent acquisitions	Significant	F150s – F300s	Significant
		F150s – F600s	Significant
		F150s – NF4i300s	NS
		F150s – NF6i300s	NS
		F300s – F600s	Not significant
Filter/iteration dependent acquisitions	Significant	F300s – NF4i300s	Not significant
		F300s – NF6i300s	Not significant
		F600s – NF4i300s	NS
		F600s – NF6i300s	NS
		NF4i300s – NF6i300s	Not significant

Suppl. table 2.1: NA: Not applicable. NS: Not significant. These pairs were included as possible pairs in the Bonferroni correction, but have no relevant outcome and are therefore not included.

2.2 Significance of Friedman's test

SUPPL. TABLE 2.2 Significance of Friedman's test

P-value of	All five reconstructions	Time dependent F150s, F300s, F600s	Filter/iteration dependent F300s, NF4i300s, NF6i300s
Total image findings	<0.001*	<0.001*	0.058
Organ findings	0.837	NA	NA
Lymph node findings	<0.001*	<0.001*	0.045*

Suppl. table 2.2: All P-values of the performed Friedman's test. Significance marked with *. Friedman's test was performed for the time and filter/iteration dependent acquisitions when the initial for all five reconstructions was significant. Pairwise comparison was indicated when significant values were found in the time and filter/iteration dependent groupings. NA: Not applicable

2.3 Time dependent Wilcoxon rank test significance.

SUPPL. TABLE 2.3 Time dependent Wilcoxon rank test significance.

Compared time dependent acquisitions			
	F150s → F300s	F300s → F600s	F150s → F600s
Total lesions			
Increase in lesions	+150*	+9	+159*
P	<0.001	0.039	<0.001
P _B	0.007	0.512	0.006
Organ lesions			
Increase in lesions	+6	0	+6
P	NA	NA	NA
P _B	-	-	-
Lymph node lesions			
Increase in lesions	+144*	+9	+153*
P	0.001	0.039	0.001
P _B	0.019	0.512	0.019

Suppl. Table 2.3: All P-values for the paired comparison of lesion detection between the time dependent acquisitions. Bonferroni correction by a factor of 13 P-value (P_B). NA: Not applicable

2.4 Filter/iteration dependent Wilcoxon rank test significance

SUPPL. TABLE 2.4 Filter/iteration dependent Wilcoxon rank test significance

Compared filter/iteration dependent acquisitions			
	F300s → NF4i300s	NF4i300s → NF6i300s	F300s → NF6i300s
Total lesions			
Increase in lesions	+20	+14	+34
P	NA	NA	NA
P _B	-	-	-
Organ lesions			
Increase in lesions	-1	0	-1
P	NA	NA	NA
P _B	-	-	-
Lymph node lesions			
Increase in lesions	+21	+14	+35
P	0.181	0.017	0.062
P _B	-	0.218	-

Suppl. Table 2.4: All P-values for the paired comparison of lesion detection between the filter and iteration dependent acquisitions. Bonferroni correction by a factor of 13 (P_B). NA: Not applicable