

Muskuloskeletální MR protokoly

3 Tesla

ÚVN Praha

T. Belšan

J. Ráček

O. Krahula

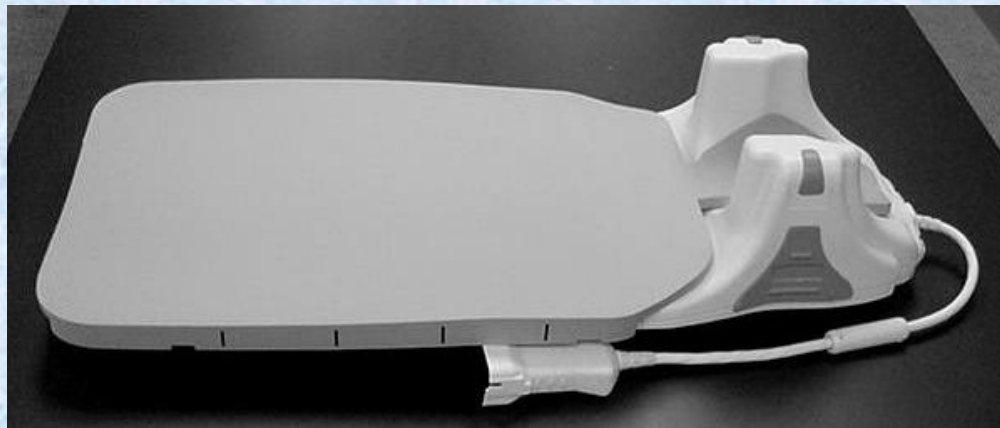
GE Signa HDx 3 Tesla

Hleznó 3T

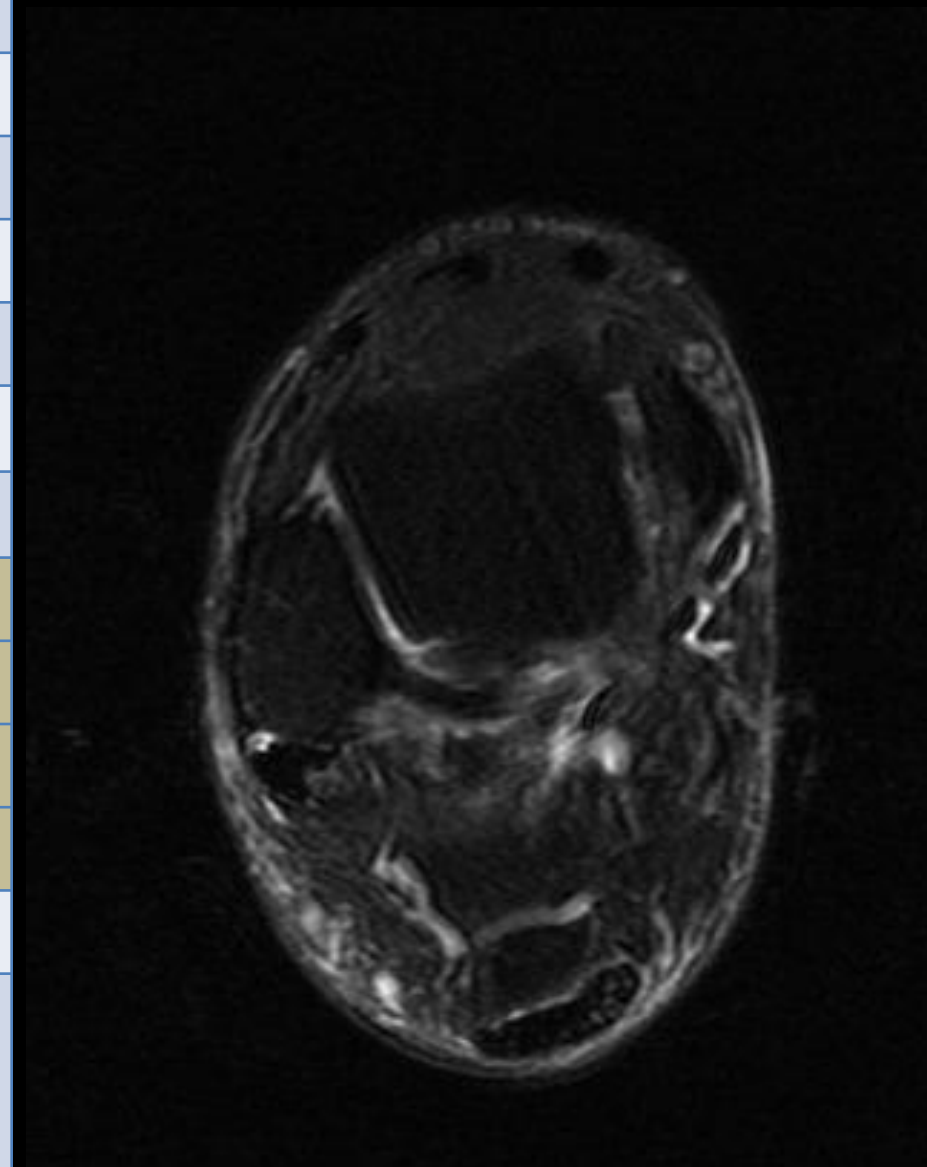
- Coil HNS CTL

Protokol:

- Ax T2 FS
- Sag T1
- Sag STIR
- Cor T1



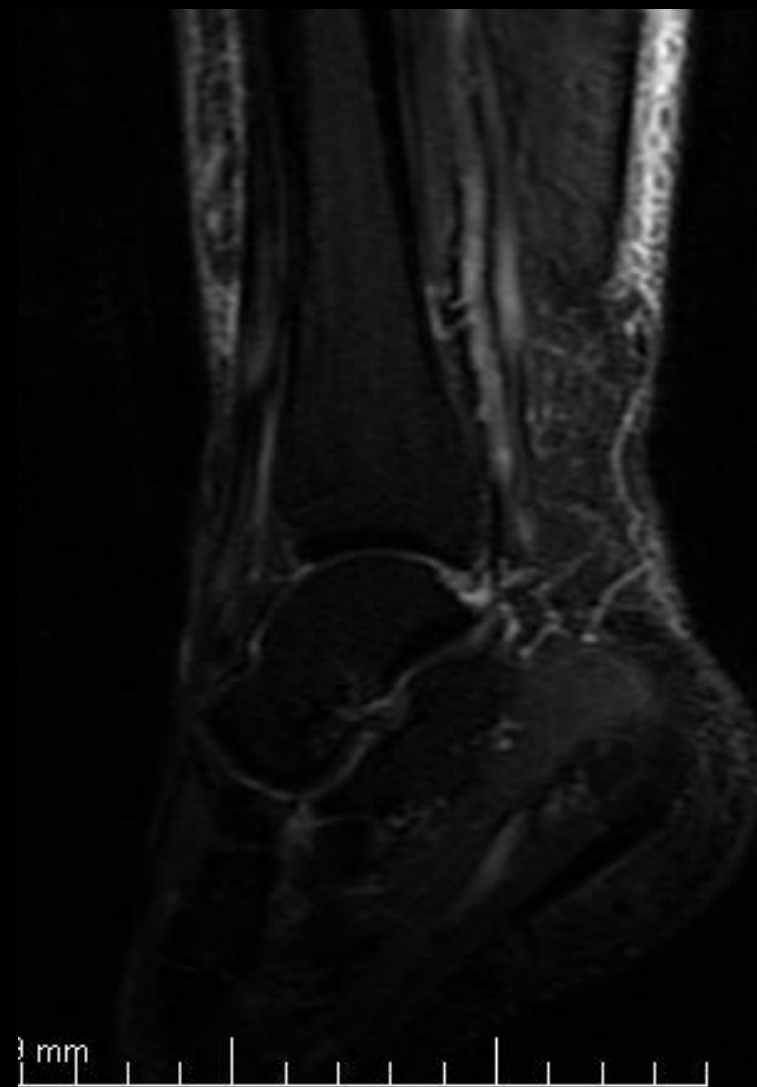
Typ	Ax T2 FatSat
Sekvence	FRFSE-XL
Rovina	Ax
Vrstva mm	4
FoV mm	17
Matrix Ph x Fr	224*384
Freq. Direction	A-P
PAT	-
TR ms / Slices	3575/20
TE ms	85
ETL	15
NEX	3
Čas	2:48
Různé	NPW, TRF



Typ	Sag T1
Sekvence	FSE-XL
Rovina	Sag
Vrstva mm	4
FoV mm	24
Matrix Ph x Fr	224x448
Freq. Direction	S-I
PAT	-
TR ms / Slices	800/17
TE ms	MinFull
ETL	3
NEX	4
Čas	4:02
Různé	NPW, TRF



Typ	Sag STIR
Sekvence	FSE-IR
Rovina	Sag
Vrstva mm	4
FoV mm	24
Matrix Ph x Fr	192x320
Freq. Direction	S-I
PAT	-
TR ms / Slices	3150/17
TE ms	42
ETL	14
NEX	2
Čas	3:09
Různé	NPW, TRF



Typ	Cor T1
Sekvence	FSE-XL
Rovina	Cor
Vrstva mm	4
FoV mm	20
Matrix Ph x Fr	224x448
Freq. Direction	S-I
PAT	-
TR ms / Slices	750/21
TE ms	MinFull
ETL	8
NEX	4
Čas	4:14
Různé	NPW, TRF



Koleno 3T

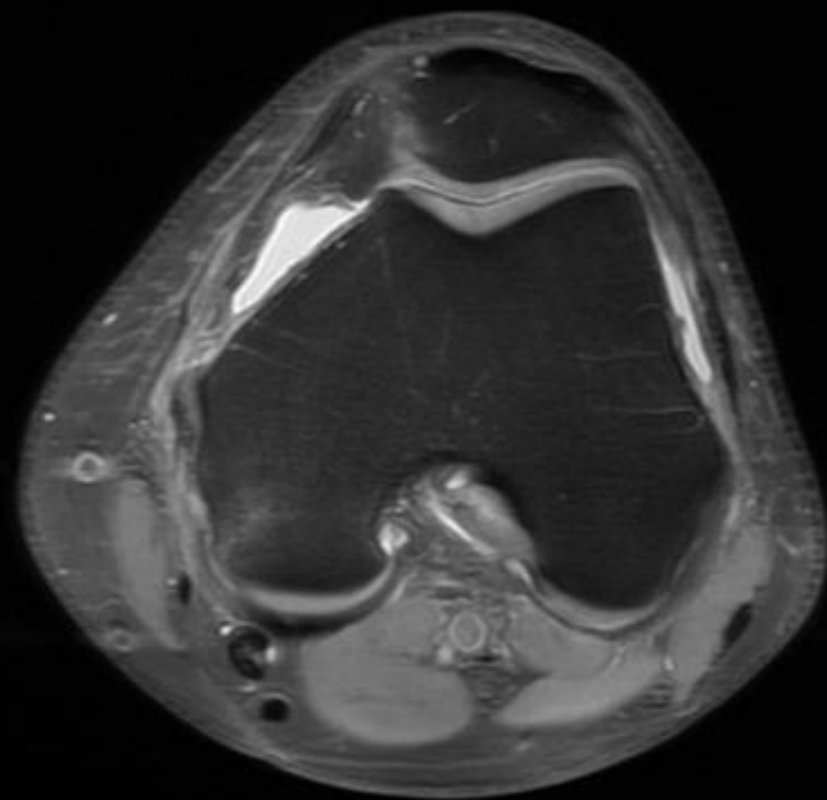
- Coil knee array 8CH

Protokol:

- Ax PD FS
- Sag T1
- Cor GRE
- Cor STIR



Typ	Ax PD FS
Sekvence	FSE-XL
Rovina	Ax
Vrstva mm	4
FoV mm	18
Matrix Ph x Fr	224x384
Freq. Direction	A-P
PAT	-
TR ms / Slices	3120/26
TE ms	MinFull
ETL	10
NEX	2
Čas	2:30
Různé	NPW, TRF



20.0

Typ	Sag T1
Sekvence	FSE-XL
Rovina	Sag
Vrstva mm	3
FoV mm	18
Matrix Ph x Fr	224x384
Freq. Direction	S-I
PAT	-
TR ms / Slices	520/26
TE ms	MinFull
ETL	4
NEX	4
Čas	2:01
Různé	TRF



Typ	Cor GRE
Sekvence	GRE
Rovina	Cor
Vrstva mm	4
FoV mm	18
Matrix Ph x Fr	224x384
Freq. Direction	S-I
PAT	-
TR ms / Slices	575/24
TE ms	10
ETL	-
NEX	2
Čas	4:14
Různé	FA 35, NPW



Typ	Cor STIR
Sekvence	FSE IR
Rovina	Cor
Vrstva mm	4
FoV mm	18
Matrix Ph x Fr	192x320
Freq. Direction	S-I
PAT	-
TR ms / Slices	4025/24
TE ms	42
ETL	16
NEX	2
Čas	3:21
Různé	NPW, TRF TI 190



Kyčel 3T

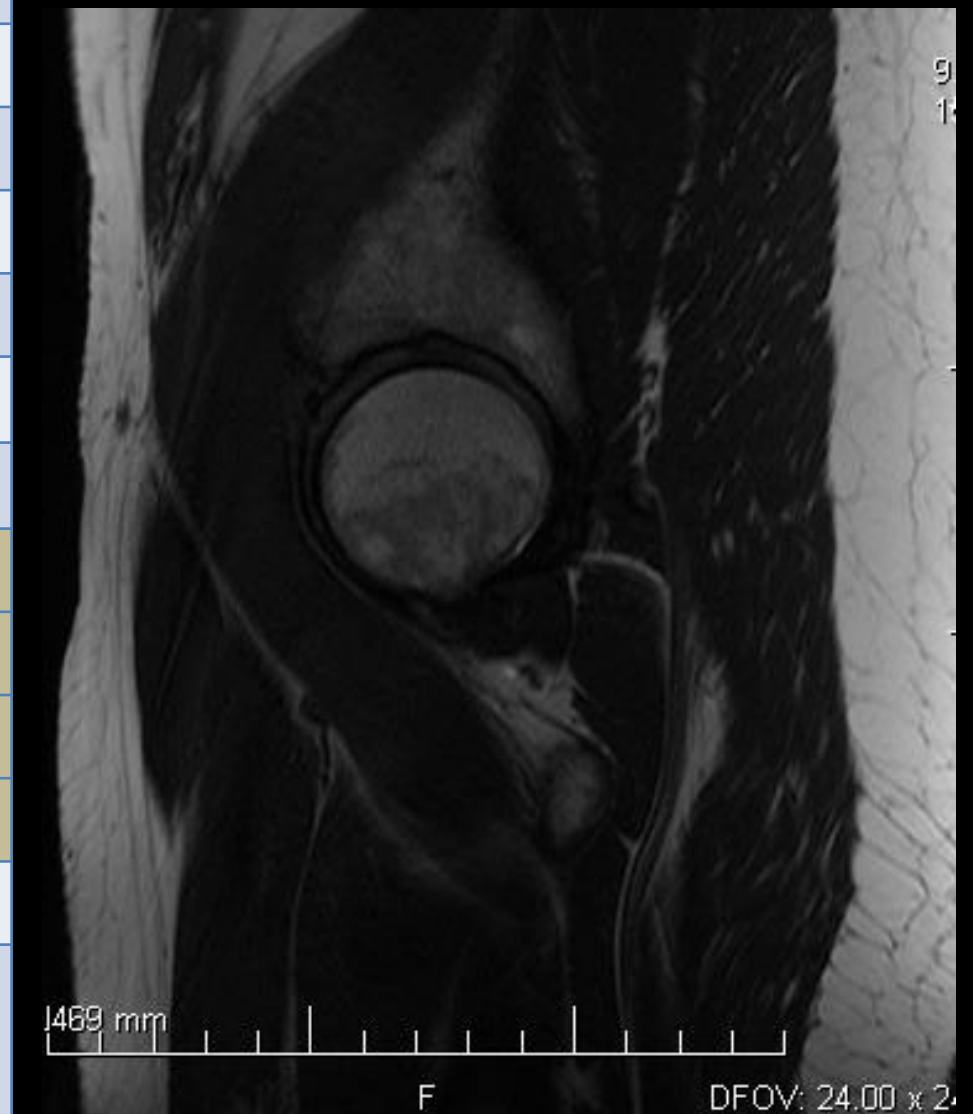
- Coil HD cardiac 8CH

Protokol:

- Sag T2
- Cor T1
- Cor T2 FS
- Ax T1
- AxT2 FS



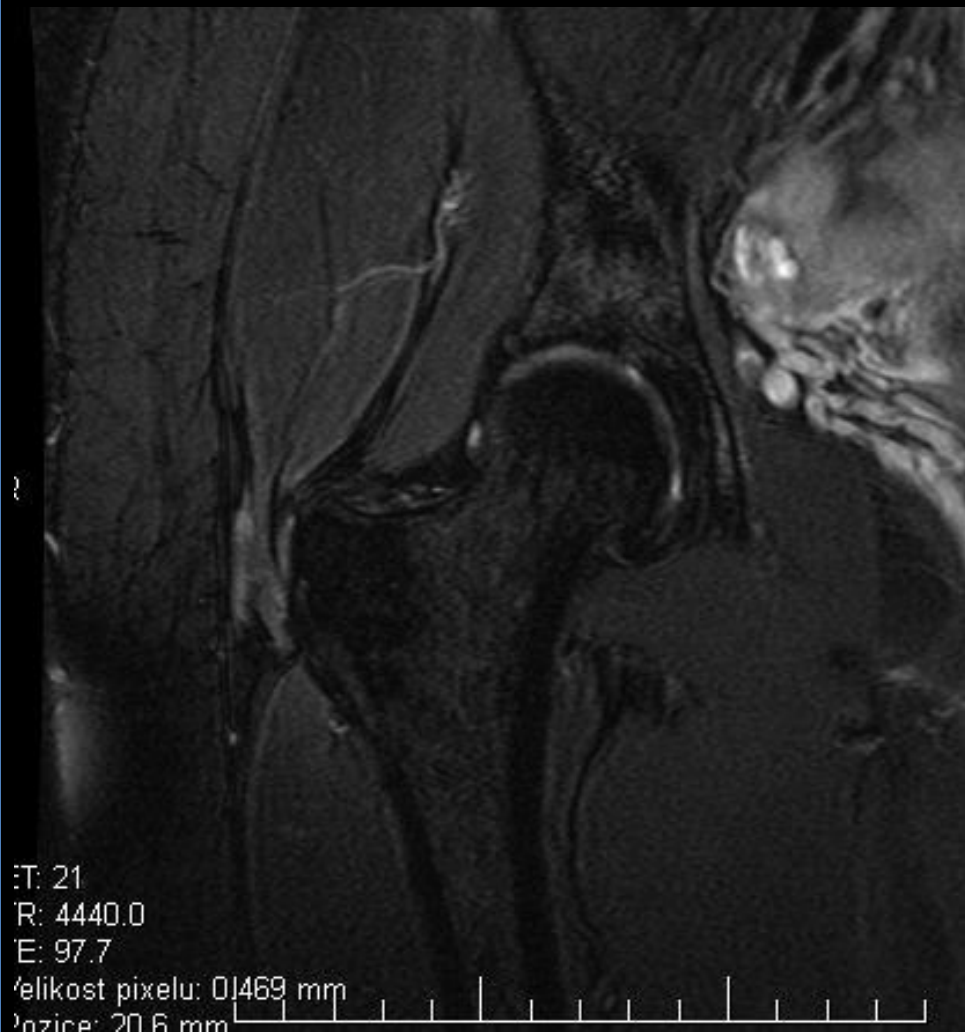
Typ	Sag T2
Sekvence	FRFSE-XL
Rovina	Sag
Vrstva mm	5
FoV mm	24
Matrix Ph x Fr	224x448
Freq. Direction	A-P
PAT	-
TR ms / Slices	4900/22
TE ms	110
ETL	19
NEX	3
Čas	3:02
Různé	NPW, TRF



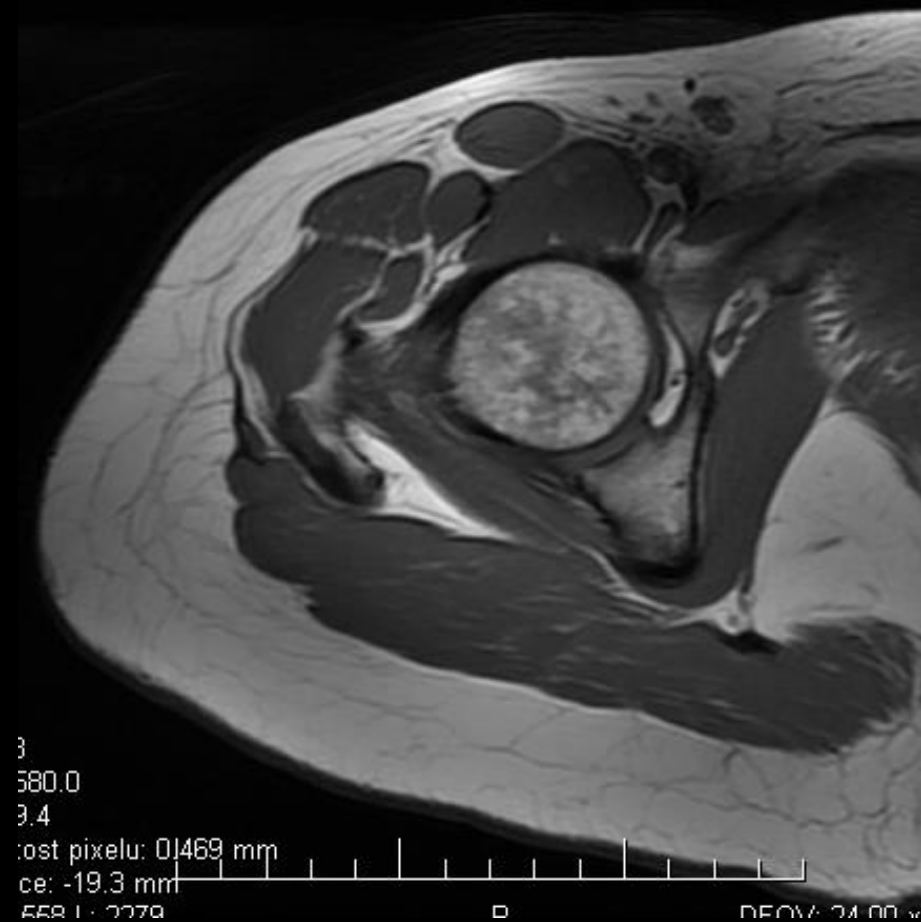
Typ	Cor T1
Sekvence	FSE-XL
Rovina	Cor
Vrstva mm	5
FoV mm	24
Matrix Ph x Fr	192x320
Freq. Direction	S-I
PAT	-
TR ms / Slices	540/20
TE ms	MinFull
ETL	4
NEX	4
Čas	3:32
Různé	NPW, TRF



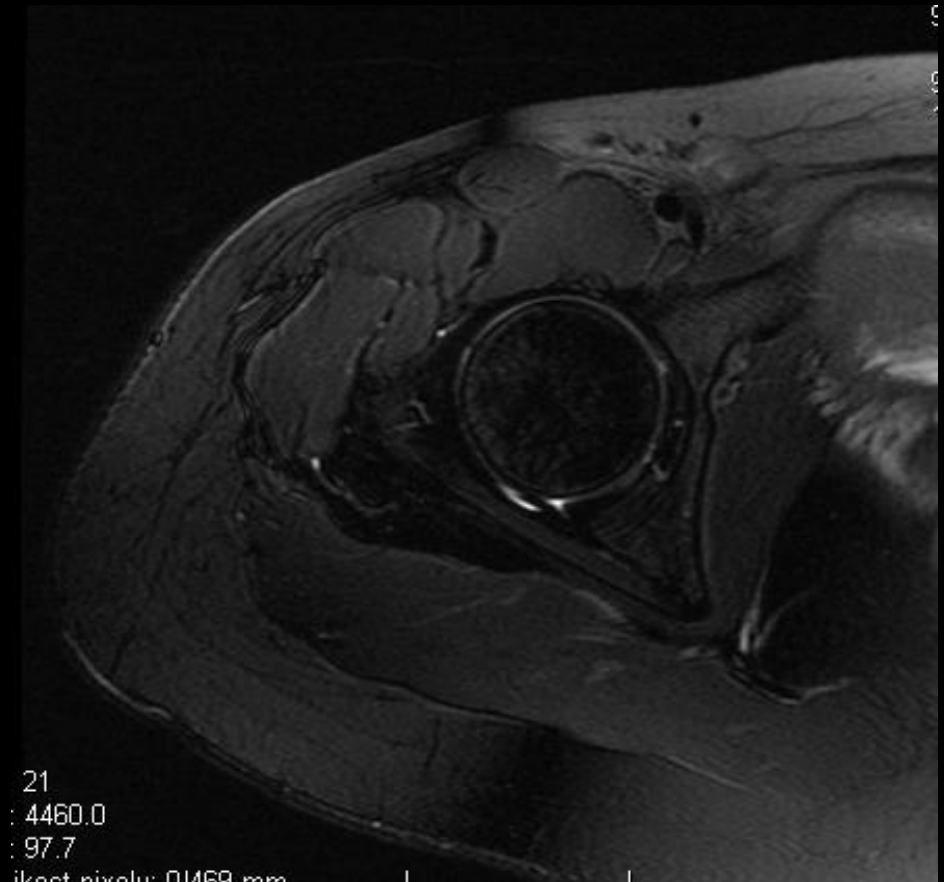
Typ	Cor T2 FS
Sekvence	FRFSE-XL
Rovina	Cor
Vrstva mm	5
FoV mm	24
Matrix Ph x Fr	224x384
Freq. Direction	S-I
PAT	-
TR ms / Slices	4440/20
TE ms	100
ETL	21
NEX	3
Čas	2:33
Různé	NPW, TRF



Typ	Ax T1
Sekvence	FSE-XL
Rovina	Ax
Vrstva mm	5
FoV mm	24
Matrix Ph x Fr	192x320
Freq. Direction	A-P
PAT	
TR ms / Slices	580/20
TE ms	MinFull
ETL	3
NEX	2
Čas	2:34
Různé	NPW, TRF



Typ	Ax T2 FS
Sekvence	FRFSE-XL
Rovina	Ax
Vrstva mm	5
FoV mm	24
Matrix Ph x Fr	224x384
Freq. Direction	A-P
PAT	2
TR ms / Slices	4446/20
TE ms	100
ETL	21
NEX	3
Čas	2:32
Různé	NPW, TRF



Rameno 3T

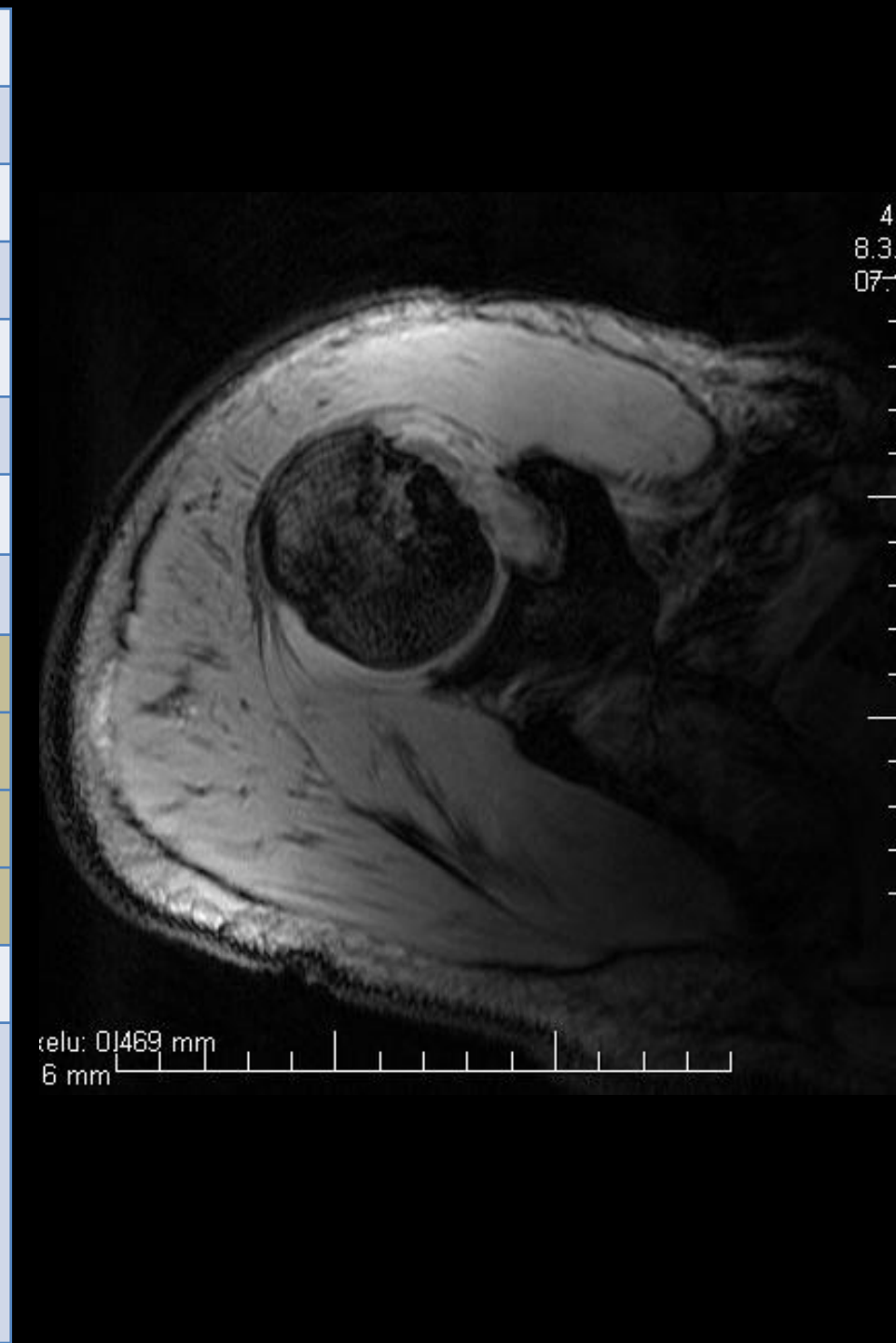
- Coil 3CH Shoulder

Protokol:

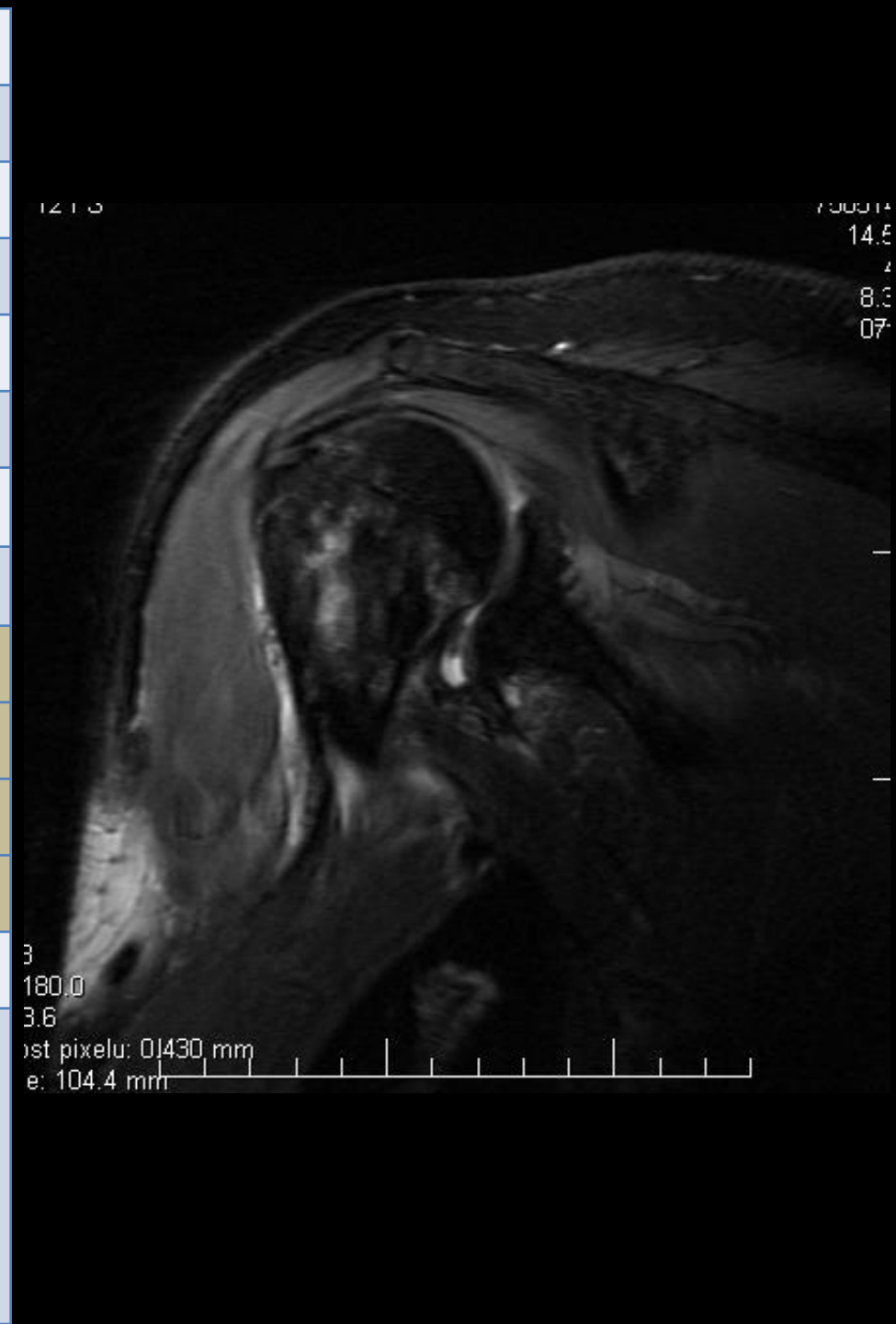
- Ax GRE T2*
- Cor T2 FS
- Cor PD
- Sag T2 FS



Typ	Ax GRE T2*
Sekvence	GRE
Rovina	Ax
Vrstva mm	4
FoV mm	20
Matrix Ph x Fr	224x512
Freq. Direction	R-L
PAT	-
TR ms / Slices	340/16
TE ms	MinFull
ETL	-
NEX	3
Čas	3:52
Různé	NPW, FA 20



Typ	Cor T2 FS
Sekvence	FSE-XL
Rovina	Cor
Vrstva mm	3
FoV mm	20
Matrix Ph x Fr	192x448
Freq. Direction	S-I
PAT	-
TR ms / Slices	4540/20
TE ms	68
ETL	18
NEX	4
Čas	3:24
Různé	NPW, TRF



Typ	Cor PD
Sekvence	FSE-XL
Rovina	Cor
Vrstva mm	3
FoV mm	20
Matrix Ph x Fr	192x448
Freq. Direction	S-I
PAT	-
TR ms / Slices	1240/20
TE ms	MinFull
ETL	3
NEX	3
Čas	3:50
Různé	NPW, TRF

FD

7.00014

14.5

2

8.3

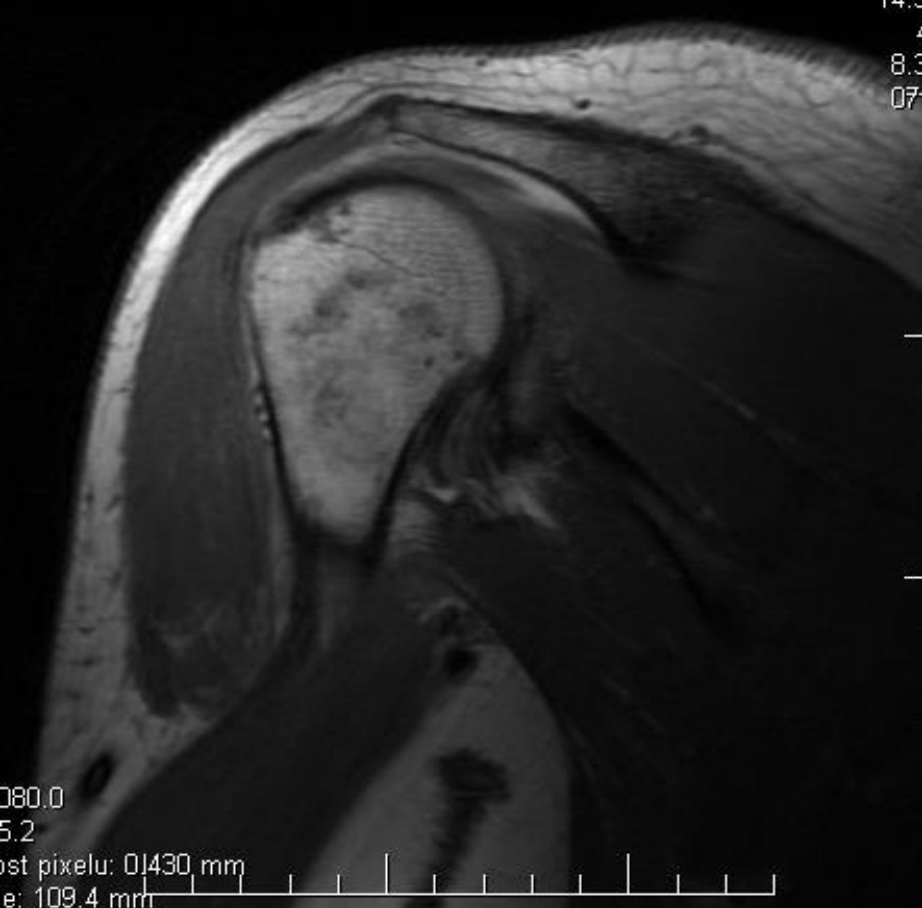
07

380.0

5.2

1st pixelu: 0,430 mm

e: 109.4 mm



Typ	Sag T2 FS
Sekvence	FSE-XL
Rovina	Sag
Vrstva mm	4
FoV mm	20
Matrix Ph x Fr	192x448
Freq. Direction	S-I
PAT	-
TR ms / Slices	3980/17
TE ms	68
ETL	18
NEX	4
Čas	3:03
Různé	NPW, TRF

