

# Analyzing Adjacent B-Scans to Localize Sickle Cell Retinopathy In OCTs: Supplemental Material

## A Retinal Thinning Due to SCR



**Fig. 1. Retinal thinning due to SCR** in consecutive B-scans, 12<sup>th</sup>, 13<sup>th</sup> and 14<sup>th</sup> images in a 31 cross-section OCT volume. The impression of SCR gets deeper from left to right, as indicated by the dotted boxes.

## B Implementation Details

**Table 1.** Training details on CSAT models

	training params	cross validation	num of epochs trained (approx.)	hardware	training time approx.
<i>CSAT</i> <b>Pretrainer</b>	31.9M	5-fold	100	2× Nvidia GeForce RTX 2080	20 hrs per fold
<i>CSAT</i> <b>Detector</b>					
<i>CSAT</i> <sub>a</sub>	43M	-	200	1× Nvidia	7 days
<i>CSAT</i> <sub>b</sub>	43M	-	200	GeForce	10 days
<i>CSAT</i> <sub>c</sub>	74.9M	-	200	RTX 3080	14 days

## C SCR Dataset

**Table 2. Statistical details of our OCT dataset** including training and testing splits for CSAT pre-trainer and object detector.

Attribute	Values						Total		
	1	2	3	4	5	8	Left eye	Right eye	Sum
Frequency of OCT scans (f)	1	2	3	4	5	8			147
Num. of patients	66	37	27	12	4	1			147
Num. of unique eyes scanned (n)	133	73	53	25	8	2	147	147	294
Num. of OCT volumes obtained (n*f)	133	146	159	100	40	16	296	298	594
B-scans per OCT (r)	31								
Total B-scans (r*n*f)	18,414								
Labelled B-scans	14,400								
Images containing SCR	5,199						<b>3,852</b>		
Images containing Fovea	5,387						<b>2,724</b>		
CSAT pre-training	Positive pairs: 59,064 Negative pairs: 417,520						<b>476,584</b>		
CSAT object detection	<b>Patients</b>		<b>OCT volumes</b>						
Training	90		331			<b>9,320 sets of n=3 scans</b>			
Testing	21		100			<b>2,317 sets of n=3 scans</b>			