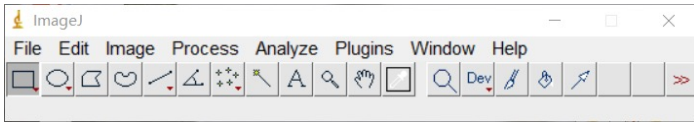
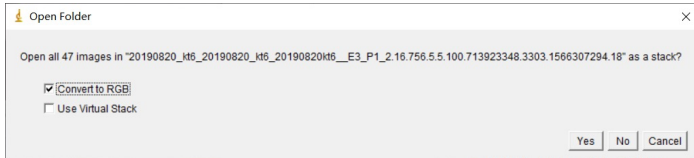


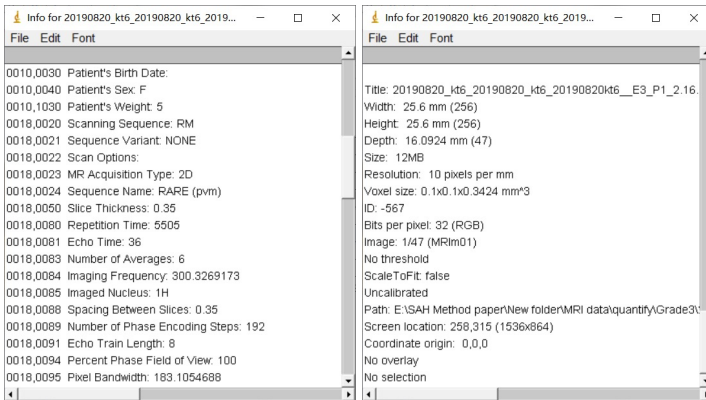
1. Open ImageJ software:



2. Import magnetic resonance sequence:

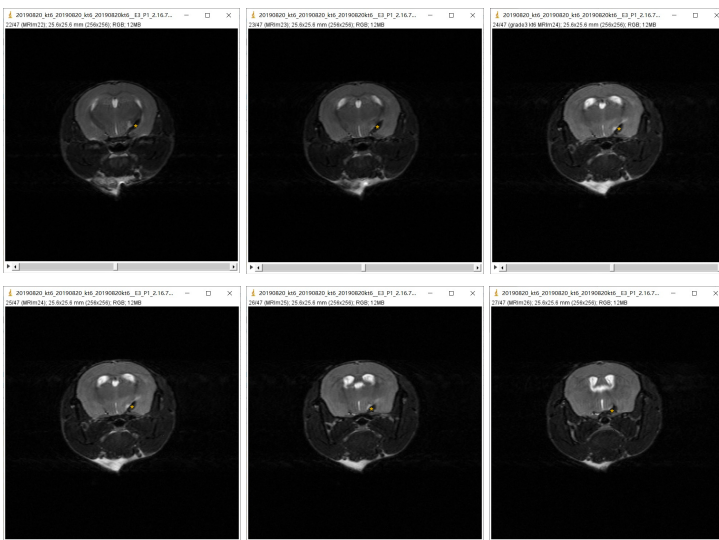


3. Enter „Strg+I“ to show info. Find dimensional data, e.g. slice thickness=0.35mm, width=25.6mm, height=25.6mm:



4. Set the scale based on the dimensional data or a scale bar (with which the image comes) by drawing a line on the known distance. Then go on „Analyze“ → „Set scale...“ and enter your specific values.

5. Identify all the images in which SAH can be seen (in these images T2 hypointense areas marked with *):



6. Method A: Identify the slice with the biggest bleeding area and measure the craniocaudal length (=a) as well as the mediolateral length (=b) of the two orthogonal axes that span the ellipsoid SAH volume.



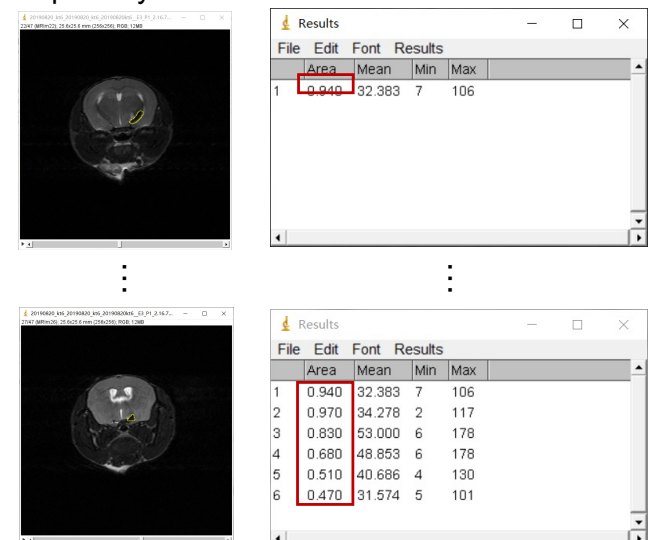
The ventrodorsal dimension (=c) of the ellipsoid shape can be estimated based on the slice thickness [0.35mm] and the number of slices [6] on which SAH is seen.

Calculate the volume based on the formula:

$$V = abc/2.$$

$$V = 2.24mm * 0.637mm * (0.35mm * 6) / 2 = 1.498mm^3$$

6. Method B: Select and calculate the bleeding areas separately:



Calculate the volume based on the formula:

$$V = (A_1 + A_2 + \dots + A_x) \cdot d$$

d = slice thickness

$$V = (0.94mm^2 + 0.97mm^2 + 0.83mm^2 + 0.68mm^2 + 0.51mm^2 + 0.47mm^2) * 0.35mm = 1.54mm^3$$