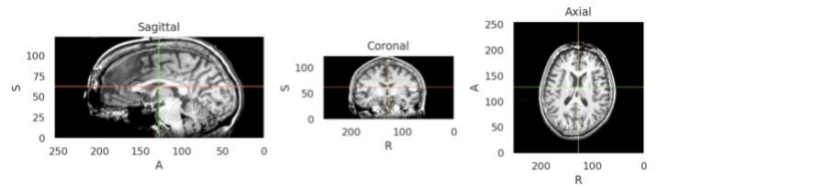
MRI & BRAIN images before transformation:

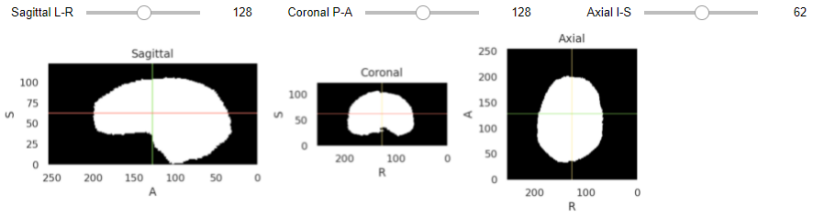
```
!curl -sS -O https://raw.githubusercontent.com/fepegar/miccai-educational-challenge-2019/master/visualization.py
import visualization
plot_volume = visualization.plot_volume_interactive
print('Shape of the MRI : {}'.format(subject.mri.numpy().squeeze().shape))
plot_volume(subject.mri.numpy().squeeze())
```

```
Shape of the MRI : (256, 256, 124)
```




```
!curl -sS -O https://raw.githubusercontent.com/fepegar/miccai-educational-challenge-2019/master/visualization.py
import visualization
plot_volume = visualization.plot_volume_interactive
print('Shape of the MRI : {}'.format(subject.brain.numpy().squeeze().shape))
plot_volume(subject.brain.numpy().squeeze())
```

```
Shape of the MRI : (256, 256, 124)
```



Transformation pipeline:

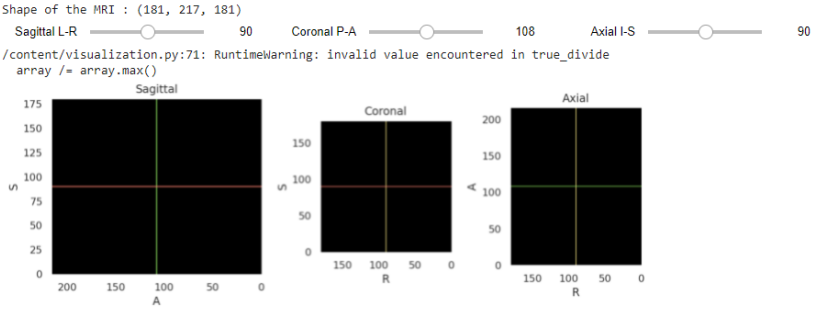
```
mni = tio.datasets.Colin27()
#try transformations together
transforms = [
    tio.ToCanonical(),
    tio.Resample(1),
    tio.Resample(
        mni.t1.path),      # to MNI space (which is RAS+)
    tio.RandomAnisotropy(p=0.25),  # make images look anisotropic 25% of times
    #tio.CropOrPad((180, 220, 170))
]

transform = tio.Compose(transforms)
processed = transform(subject)
```

After transformation, visualization for brain images (same result with mri images):

```
!curl -sS -O https://raw.githubusercontent.com/fepegar/miccai-educational-challenge-2019/master/visualization.py
import visualization
plot_volume = visualization.plot_volume_interactive
print('Shape of the MRI : {}'.format(processed.brain.numpy().squeeze().shape))
plot_volume(processed.brain.numpy().squeeze())
```

```
Shape of the MRI : (181, 217, 181)
```




```
/content/visualization.py:71: RuntimeWarning: invalid value encountered in true_divide
  array /= array.max()
```