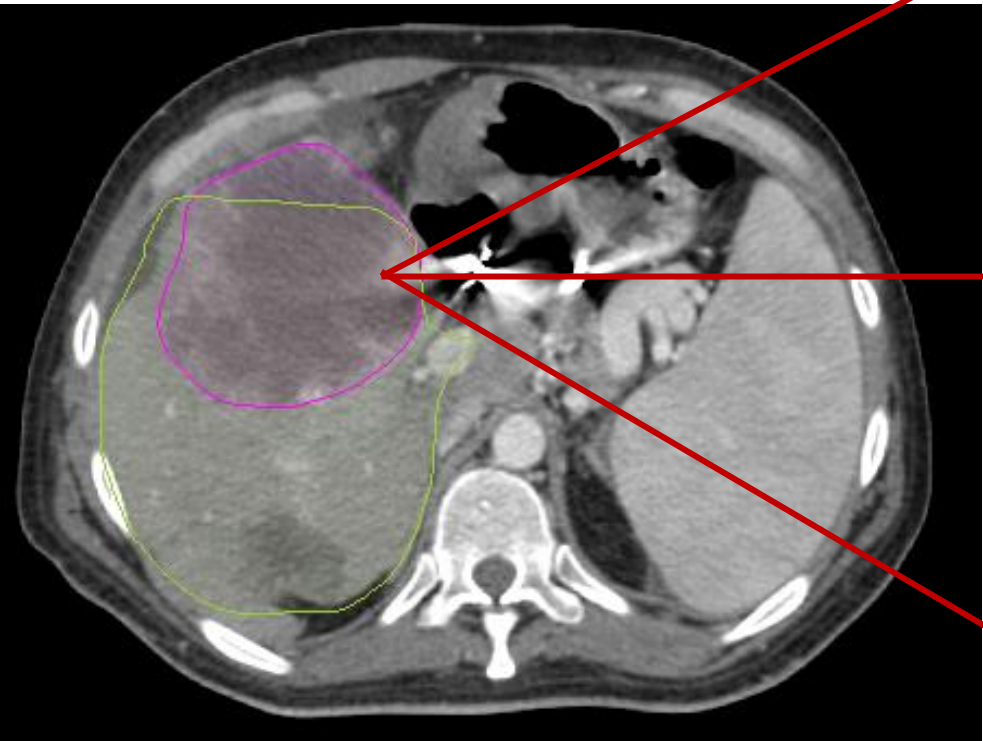


— **Tumor Segmentation**
— **Liver Segmentation**

Liver CT and Segmented Tumor



Outcome:
Local Progression

$$\frac{\sum_{i=1}^{N_g} \sum_{j=1}^{N_g} (p_i + p_j)(i - j)^2}{\sum_{i=1}^{N_g} s_i}$$

**Neighboring Gray Tone
Difference Matrix Strength:**
0.0271

$$\frac{\frac{1}{N_p} \sum_{i=1}^{N_p} (\mathbf{X}(i) - \bar{X})^4}{\left(\frac{1}{N_p} \sum_{i=1}^{N_p} (\mathbf{X}(i) - \bar{X})^2 \right)^2}$$

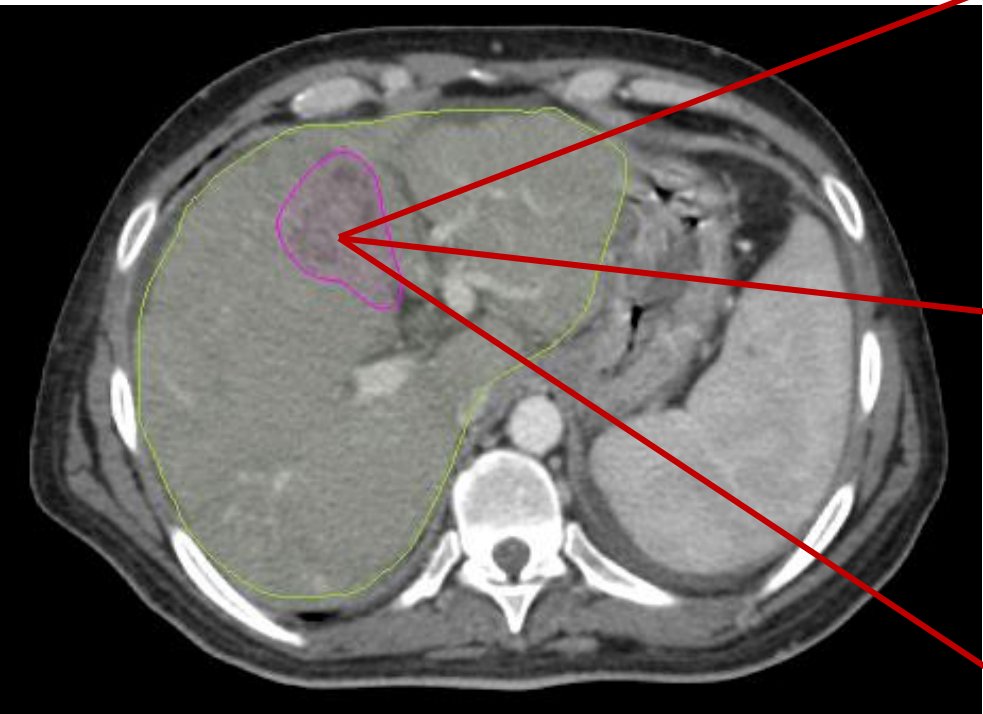
Skewness:
198.6652

$$\sum_{i=1}^{N_g} \sum_{j=1}^{N_g} (i + j - \mu_x - \mu_y)^3 p(i, j)$$

**Gray Level Co-occurrence
Matrix Cluster Shade:**
-955.8940

Time-To-Event:
8.3 Months

Liver CT and Segmented Tumor



Outcome:
No Local Progression

$$\frac{\sum_{i=1}^{N_g} \sum_{j=1}^{N_g} (p_i + p_j)(i - j)^2}{\sum_{i=1}^{N_g} s_i}$$

**Neighboring Gray Tone
Difference Matrix Strength:**
0.0071

$$\frac{\frac{1}{N_p} \sum_{i=1}^{N_p} (\mathbf{X}(i) - \bar{X})^4}{\left(\frac{1}{N_p} \sum_{i=1}^{N_p} (\mathbf{X}(i) - \bar{X})^2 \right)^2}$$

Skewness:
-0.9242

$$\sum_{i=1}^{N_g} \sum_{j=1}^{N_g} (i + j - \mu_x - \mu_y)^3 p(i, j)$$

**Gray Level Co-occurrence
Matrix Cluster Shade:**
-452.4516