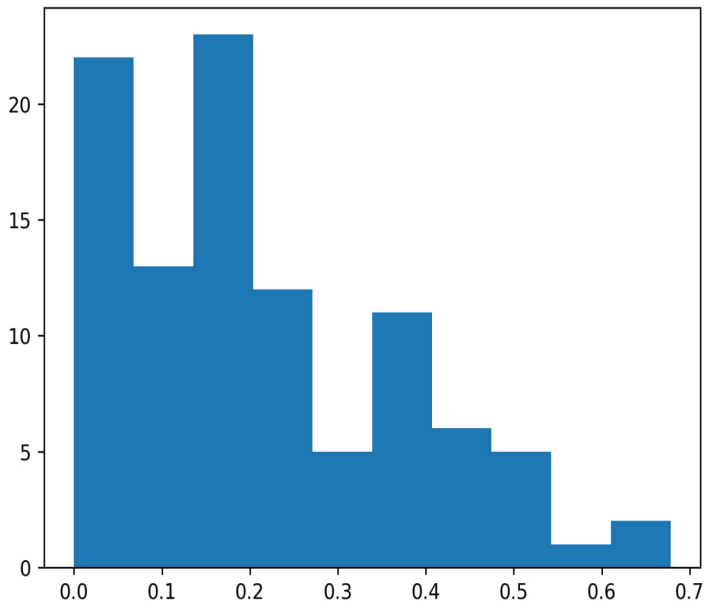
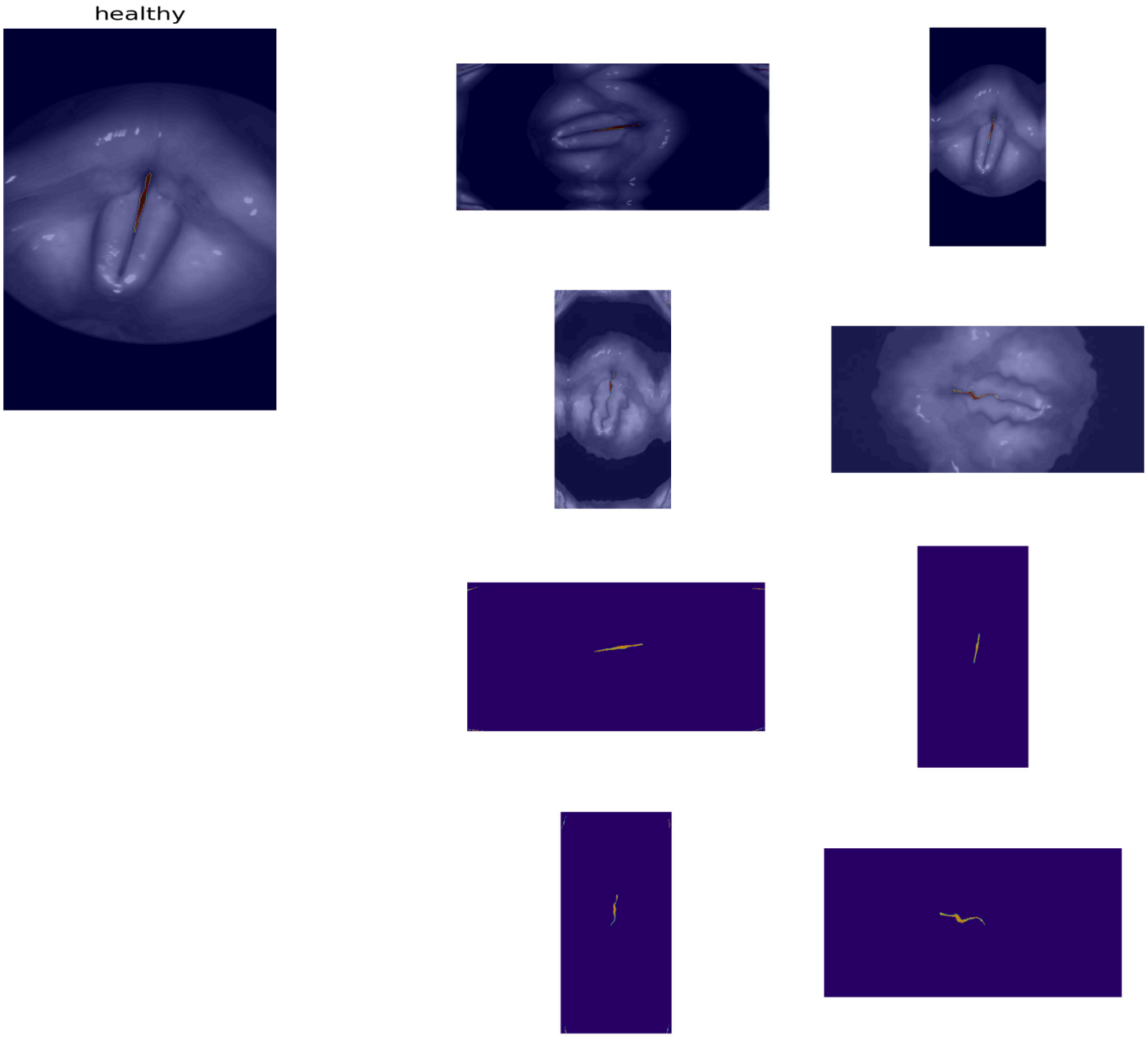
```python
def p(x,x2,y,y2):
    plt.plot([x,x2,x2,x,x],[y,y,y2,y2,y],'-o')

def get_distance(x,x2,xp,xp2):
        a = np.min([x2,xp2]) - np.max([x,xp])
        return a if a>0 else 0

def calculate_iou(rect1,rect2):
    x,y,w,h = rect1
    xp,yp,wp,hp = rect2
    x2 = x + w
    y2= y + h
    xp2 = xp + wp
    yp2 = yp + hp
    s1 = h*w
    s2 = hp*wp
    s = get_distance(x,x2,xp,xp2) * get_distance(y,y2,yp,yp2)
    su=s1+s2 - s

    iou = s/su
    return iou
```





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