```
clear;clc;close all;
%% 读取图像
image=imread('spine.tif');
%% 直方图均衡
image_hist = histeq(image);
figure(1);
subplot(1,2,1);imshow(image);title('原图');
subplot(1,2,2);imshow(image_hist);title('均衡化后');
figure(2);
subplot(1,2,1);bar(histogram_img(image));title('原图像直方图');
subplot(1,2,2);bar(histogram_img(image_hist));title('均衡化后直方图');
%% 计算直方图
function array = histogram_img(image)
    array=zeros(1,256);
    [m,n]=size(image);
    for i=1:m  %统计灰度像素出现个数
        for j=1:n
            array(image(i,j)+1)=array(image(i,j)+1)+1;
        end
    end
end
```