6 Images on segmentation Algorithms

This algorithm is work on 6 images which work on 3 OA images and 3 non-images.

\*Read original image

info = dicominfo('OA\_30.dcm');

Y = dicomread(info);

figure

imshow(Y,[]);  


\*Enhancement the image

I=dicomread('OA\_30.dcm');

J = histeq(I);

J1 = histeq(J);

J2 = histeq(J1);

J3 = histeq(J2);

J4 = histeq(J3);

J5 = histeq(J4);

J6 = histeq(J5);

J71 =double(J6);

J7 = imadjust(J6);

J8 = imadjust(J7);

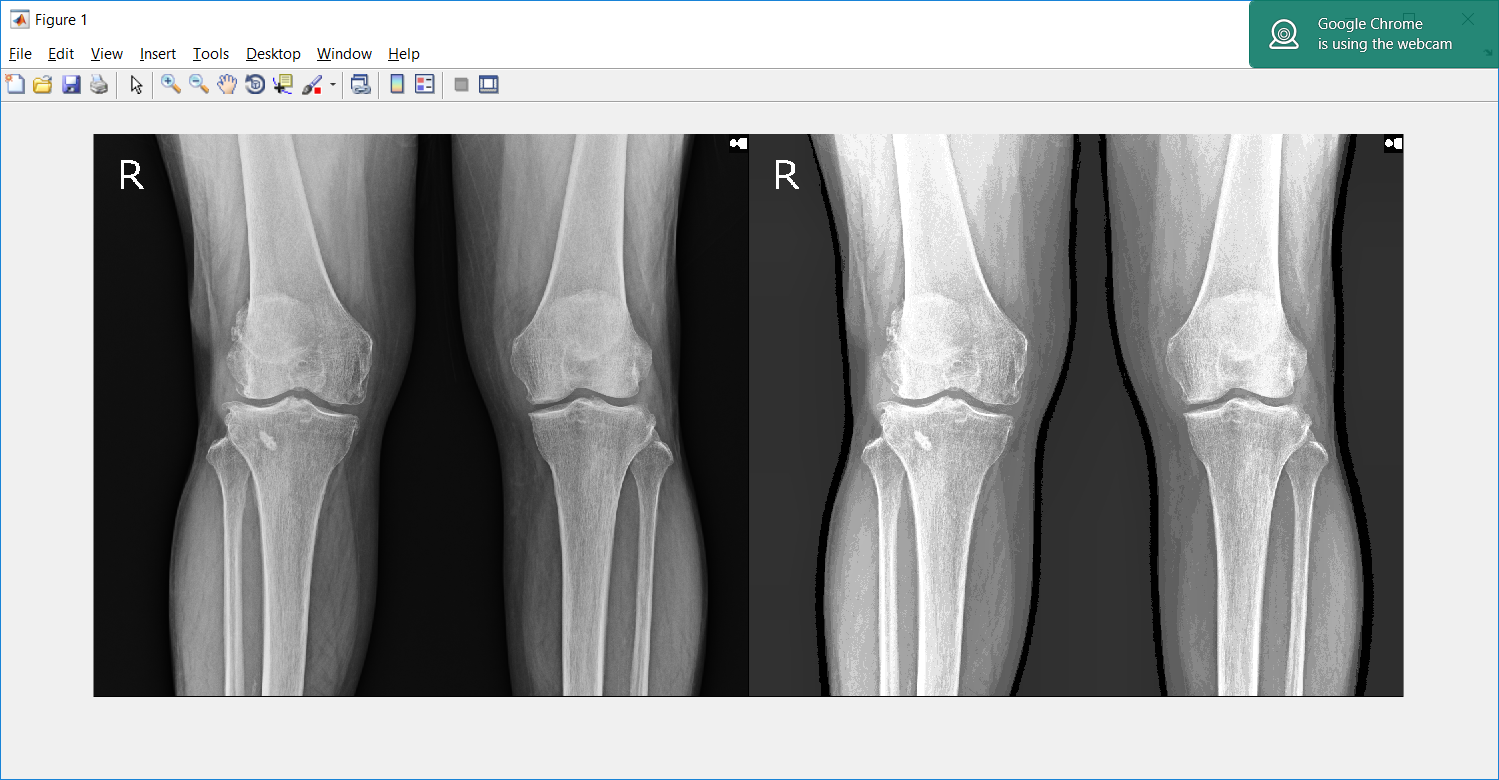
J9 = imadjust(J8);

J10 = imadjust(J9);

J11 = histeq (J10);

J12=adapthisteq(J11);

imshowpair(I,J12,'montage');



\*Crop the image





\* Sobel on the crop image

q=imread('cropOA3\_0.jpg');

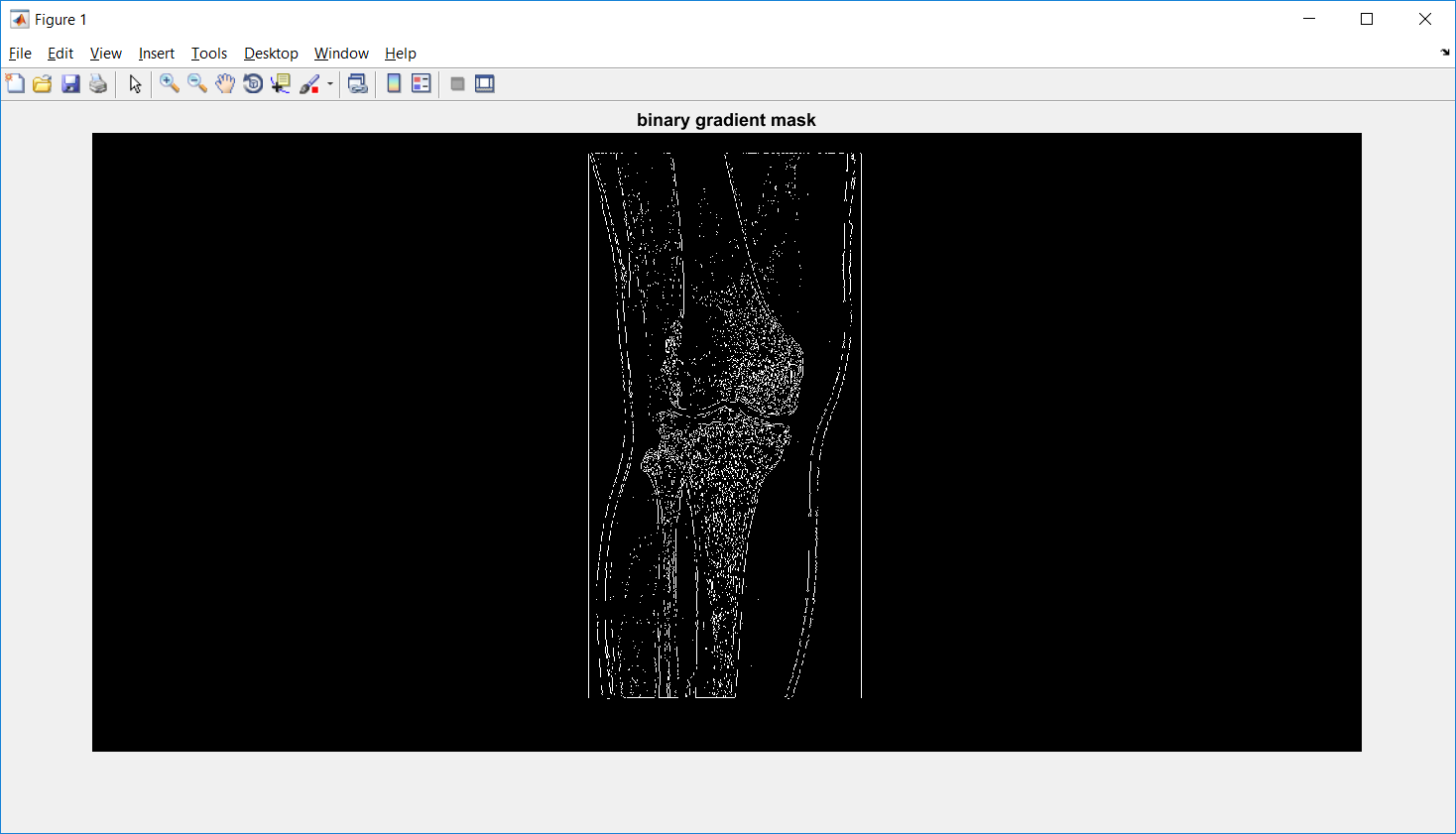
gray=rgb2gray(q);

[~, threshold] = edge(gray, 'sobel');

fudgeFactor = .99;

BWs = edge(gray,'sobel', threshold \* fudgeFactor);

Imshow(BWs);



\*Dilate the image

se180 = strel('line', 3, 180);

se0 = strel('line', 3, 0);

BWsdil = imdilate(BWs, [se180 se0]);

figure, imshow(BWsdil), title('dilated gradient mask');



\*Hole Filling

BWdfill = imfill(BWsdil, 'holes');

figure, imshow(BWdfill);

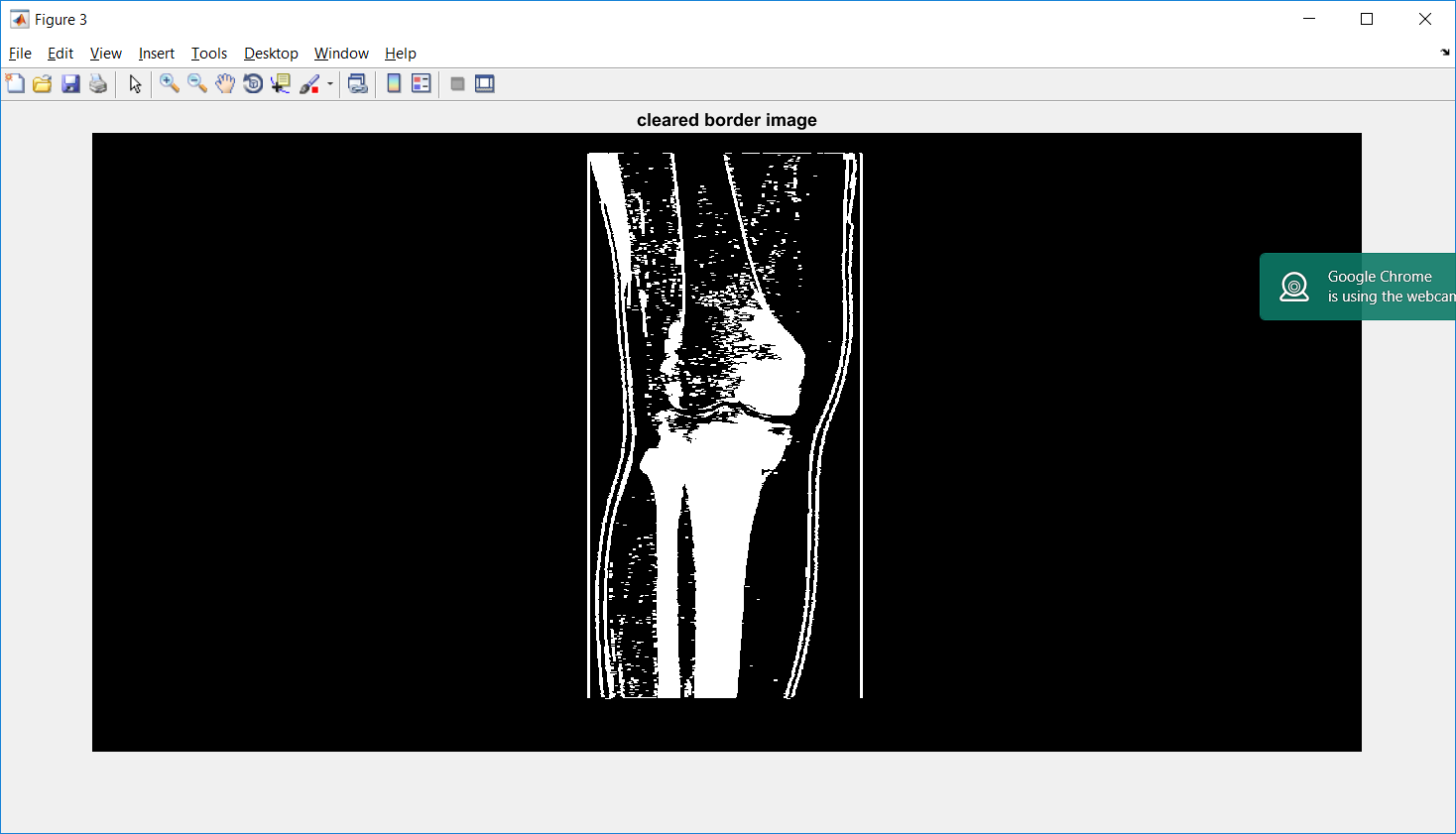
title('binary image with filled holes');



\*borderless the

BWnobord = imclearborder(BWdfill, 1);

figure, imshow(BWnobord), title('cleared border image');



\*Noise remove

K = wiener2(BWnobord ,[2 4]);

imshow(K);

