CONCLUSION

This proposed preprocessing method for kidney stone segmentation will provide good support in detecting kidney stone. Intensity-based thresholding can produce the output image without any soft regions. Area-based thresholding can delete the bony skeleton from the image. Location-based thresholding can reduce many false positive and bed mat region. Because of using thresholding methods based on the prior knowledge of the image, the proposed scheme is simple and easy to understand for segmentation. Moreover, the proposed thresholding methods correctly remove the unneeded region and provide the output image in a clear form. According to performance analysis, the detection ability of the program is efficient with high sensitivity (sensitivity is 1). The result we found is good and satisfactory. As limitation, the proposed schemes will weak in robustness because it is completely reline the prior knowledge of the input image. We plan to explore more robust preprocessing process and to develop the accurate method for kidney stone segmentation.

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