

CLAIMS

1. A method of analyzing a whole scale radiograph, the method comprising:

receiving the whole scale radiograph;

applying a model stored in a memory;

analyzing the whole scale radiograph based on the model;

determining the whole scale radiograph including a presence of fracture; and,

transmitting an indication indicative of the determination;

wherein applying the model comprising:

receiving training data from a dataset, the training data including a plurality of

training images, each training image includes diagnosis data;

developing the model using the training data; and

storing the model in the memory, and

wherein analyzing the whole scale radiograph based on the model comprising

augmenting the whole scale radiograph, said augmenting is at least one of:

zooming of the whole scale radiograph;

flipping the whole scale radiograph horizontally;

flipping the whole scale radiograph vertically; and,

rotating the whole scale radiograph.

2. The method of claim 1, wherein applying the model further comprising:

identifying a portion of each training image, wherein the portion includes the diagnosis data; and

developing the model using the training data and the portion identified.

3. The method of claim 1, wherein developing the model comprising using machine learning technique or deep neural network learning technique.
4. The method of claim 1, further comprising identifying a lesion site.
5. The method of claim 4, further comprising generating a heatmap to identify the lesion site.
6. The method of claim 1, wherein the presence of fracture comprise fracture in a hip or pelvic region and analyzing the whole scale radiograph based on the model does not require the identification of the femoral neck in the whole scale radiograph.
7. The method of claim 1, wherein the whole scale radiograph is a frontal pelvic radiograph and 500 x 500 pixels to 3000 x 3000 pixels.
8. A system of analyzing a whole scale radiograph, the system comprising:
 - a scanner for receiving the whole scale radiograph;
 - a processor being configured to:
 - apply a model;
 - analyze the whole scale radiograph based on the model; and
 - determine the whole scale radiograph comprising a presence of fracture; and
 - a display for displaying an indication indicative of the determination;wherein the processor is configured to apply the model comprising
 - receiving training data from a dataset, the training data including a plurality of training images, each training image includes diagnosis data;

developing the model using the training data; and

storing the model in the memory, and

wherein the processor is configured to analyze the whole scale radiograph based on the model comprising augmenting the whole scale radiograph, said augmenting is at least one of:

zooming of the whole scale radiograph;

flipping the whole scale radiograph horizontally;

flipping the whole scale radiograph vertically; and,

rotating the whole scale radiograph.

9. The system of claim 8, wherein the processor is configured to retrieve the model further comprising:

identifying a portion of each training image; and

developing the model using the training data and the portion identified.

10. The system of claim 8, wherein developing the model comprising using machine learning technique or deep neural network learning technique.

11. The system of claim 8, wherein the processor is further configured to identify a lesion site.

12. The system of claim 11, wherein the processor is further configured to generate a heatmap to identify the lesion site.

13. The system of claim 8, wherein the presence of fracture comprise fracture in a hip or pelvic region and analyzing the whole scale radiograph based on the model does not require the identification of the femoral neck in the whole scale radiograph.

14. The system of claim 8, wherein the whole scale radiograph is a frontal pelvic radiograph and 500 x 500 pixels to 3000 x 3000 pixels.