Verification is a crucial process in radiotherapy because it assures the compatibility of treatment since the success of radiotherapy was judged by an error < ±5%. The treatment of tangential field needs and integration of several steps for accurate set up and perfect delivering of radiation dose. The main objective of this study was to verify the treatment plan of the tangential field of breast cancer patient using a portal film and contour as reference for 50 breast cancer patients in Radiation and Isotope Center of Khartoum (RICK) in period from December 2009 to May 2010. The study compared the breast area, exposed lung and the overshine area. The mentioned area was measured by using interactive method to trace out the outlines of the region of interest. The result of this study showed that the mean areas of the breast in the portal film and contour where 56.9 cm$^2$ and 63.8 cm$^2$ respectively and that of the exposed lung was 21.2 and 23.2 cm and for over shine area was 31.2 cm$^2$ and 29.3 cm$^2$. 

Abstract
الخلصَة

تعتبر عملية التحقق امراً في غاية的重要性 في العلاج بالأشعة لانها تؤكد مدى التطابق والتوافق بين حقل الاشعاع الحقيقي والافتراضي. وذلك لأن هناك نسبة خطأ مقبولة تساوي ± 5% بين الحققيين. ويحتاج علاج حقل التماس الالتقاء الكامل العديد من الخطوات للوصول الى الوضع الصحيح والجرعة الإشعاعية المطلوبة. والهدف الأساسي من هذه الدراسة هو التحقق من خطة العلاج حسب حقل التماس لعلاج مرضى سرطان الثدي باستخدام الفلم المدخلي والكتشف كمرجعية للقياس لعدد خمسين مريضة بسرطان الثدي في المركز القومي للعلاج بالأشعة والطب النووي بالخرطوم خلال الفترة (ديسمبر 2009 - مايو 2010). قامت الدراسة بمقارنة منطقة المنطقة الثدي والمناطق الرئوية المعرض للاشعاع، ومنطقة الاشعاع المباشر. وقد تم قياس المناطق المذكورة عن طريق وسيلة فعالة لتحديد حدود المنطقة المعينة. وقد أوضحت الدراسة أن متوسط مناطق الثدي في الفلم المدخلي وفي الكابور تساوي 56.9 سم 2 و 63.8 سم 2 على التوالي. أما بالنسبة للجزء المعرض من الرئة فهو يساوي 21.2 سم 2.
List of Contents

Chapter one

1- Introduction ........................................................................................................1

1-1 the problems .................................................................................................3

1-2 objectives ........................................................................................................3

1-2-1 general objectives ......................................................................................3

1-2-2 specific objectives .....................................................................................3

1- 3 significant of the study ..................................................................................3

1-4 over view of the study ....................................................................................4

Chapter Two: section one: back ground and literature review

2.1 Anatomy ...........................................................................................................5

2.1.1 The breast composition ............................................................................5

2.2 The lymphatic system ....................................................................................7

2.3 Physiology of the Breast ...............................................................................8

2.4 Pathology .........................................................................................................8

iii
2.5 Sign and symptoms of breast cancer.................................9
2.6 Diagnosis of breast cancer:..............................................10
2.7 TNM breast cancer staging.............................................12
The T stages (tumour).......................................................13
The N stages (nodes).......................................................15
The M stages (metastases)...............................................15
2.8 Breast cancer grade....................................................16
2.9 Risk factors for breast cancer:......................................17
2.9.1. Age........................................................................17
2.9.2 Personal history of breast cancer..................................17
2.9.3 Family history.........................................................18
2.9.4 Breast changes.......................................................18
2.9.5 Gene changes........................................................18
2.9.6 Reproductive and menstrual history..............................18
2.9.7. Race.......................................................................18
2.9.8. Radiation therapy to the chest....................................18
2.9.9 Breast density........................................................19
2.9.10 Taking DES (diethylstilbestrol).................................19
2.9.11 Being overweight or obese after menopause...............19
2.9.12 Lack of physical activity..........................................19
2.9.13 Drinking alcohol.................................................................19

2.10 Breast Cancer Treatment......................................................20

2.10.1 Surgery.................................................................20

2.10.2 Chemotherapy..............................................................21

2.10.3 Hormonal Therapy...........................................................22

2.10.4 Radiation Therapy..............................................................22

2.10.4.1 Brachytherapy..............................................................23

2.10.4.2 External beam irradiation..................................................24

Conformal radiotherapy ...............................................................25

Intensity Modulated Radiation Therapy..............................................26

Radiotherapy planning for breast carcinoma.........................................27

Virtual Simulation Planning: ............................................................30

Supra-clavicle fields .................................................................31

Breast target volumes .................................................................32

Tumor bed ........................................................................32

Lymph nodes ........................................................................33

Treatment

technique........................................................................33

Chest wall or breast and lymph nodes..................................................34

Non standard techniques ............................................................36
Section Two:

Evaluation of tangential field irradiation........................................37

Chapter Three: Methodology

Material and Method..............................................................................41

3.1. Material.........................................................................................41

3.1.1. Co-60 machine........................................................................41

3.1.2. X-ray film................................................................................43

1.3. Film processing.............................................................................44

3.1.3.1 Developing.............................................................................44

3.1.3.2. Fixing:-................................................................................44

3.1.3.3. Washing:-.............................................................................44

3.2.1. Method.......................................................................................45

3.2.2. Method of data collection.........................................................45

3.3. Method of data analysis.................................................................46

Chapter Four: Results ............................................................................47

Chapter five
List of Abbreviation

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLD</td>
<td>central lung distance</td>
</tr>
<tr>
<td>CT</td>
<td>computed tomography</td>
</tr>
<tr>
<td>CTV</td>
<td>Clinical target volume</td>
</tr>
<tr>
<td>2D</td>
<td>two dimensions</td>
</tr>
<tr>
<td>3D</td>
<td>Three dimensions</td>
</tr>
<tr>
<td>3DCRT</td>
<td>three dimension conformal radiotherapy</td>
</tr>
<tr>
<td>FNA</td>
<td>Fine Needle Aspiration</td>
</tr>
<tr>
<td>IDL</td>
<td>Interactive Data Language</td>
</tr>
<tr>
<td>IMRT</td>
<td>Intensity Modulated Radiation Therapy</td>
</tr>
<tr>
<td>IORT</td>
<td>intraoperative radiation therapy</td>
</tr>
<tr>
<td>LN</td>
<td>Lymph Node</td>
</tr>
<tr>
<td>M</td>
<td>Metastases</td>
</tr>
<tr>
<td>MRI</td>
<td>Magnetic resonance imaging</td>
</tr>
<tr>
<td>N</td>
<td>Regional lymph nodes</td>
</tr>
</tbody>
</table>
**List of Tables**

<table>
<thead>
<tr>
<th>Table</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 3.1 shows the field size (Elite 100)</td>
<td>41</td>
</tr>
<tr>
<td>Table 3.2 data collection sheet</td>
<td>45</td>
</tr>
<tr>
<td>Appendix A Data collection sheet</td>
<td>I</td>
</tr>
</tbody>
</table>

**List of Figures**

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Figure 1-1 normal breast anatomy</td>
<td>6</td>
</tr>
<tr>
<td>2. the lymphatic system of the breast</td>
<td>7</td>
</tr>
<tr>
<td>3. Figure (2.3) illustrate the stage T1</td>
<td>13</td>
</tr>
<tr>
<td>4. Figure (2.4) illustrate the stage T2 breast cancer</td>
<td>14</td>
</tr>
<tr>
<td>5. Figure (2.5) illustrate the stage T3 breast cancer</td>
<td>14</td>
</tr>
<tr>
<td>6. Figure (2.6 a) tangent field CT image of breast carcinoma</td>
<td>29</td>
</tr>
</tbody>
</table>
7. Figure (2.6) b) Axial image for breast tangential irradiation
8. Figure (2.7) Beams-eye-views of the blocks for the lateral and medical tangent fields, which follows the outlined breast parenchyma.
9. Figure (2.8) Regional lymph node irradiation in a breast cancer patient with involved lymph nodes.
10. Figure (2.9) sketch diagram shows four field technique exclude internal mammary nodes
11. Figure 3.2 CO60 machine compound
12. Figure (4.1) show how the mean area of the lung, breast, and overshine in portal film and contour.
13. Figure (4.2) how the breast area (cm) in the portal film and contour
14. Figure (4.3) show the lung area (cm) in the portal film and contour
15. Figure (4.4) show overshine (cm) in the portal film and contour
16. Figure (4.5) scatter plot show the relation between the breast area and the treatment field area.
17. Figure (4.6) scatter plot show the relation between the exposed lung area and the breast area.
18. Figure (4.7) scatter plot show the relation between the exposed lung area and the treatment field area.
19. Figure (4.8) scatter plot show the relation between the over shine area and the treatment field area.
20. Figure (4.9) scatter plot show the relation between the overshine area and the breast area.
21. Figure B.1 Lt Breast portal image with field size 5.5×15
22. Figure B.2 Lt Breast contour with field size 5.5×15
23. Figure B.3 Rt Breast image with field size 9.5×16
24. Figure B.4 Rt Breast contour with field size 9.5×16
25. Figure B.5 Rt Breast image with field size 5×14
26. Figure B.6 Rt Breast contour with field size 5×14
27. Figure B.7 Rt Breast image with field size 5×17
28. Figure B.8 Rt Breast contour with field size 5×17
29. Figure B.9 Lt Breast image with field size 5×12
30. Figure B.10 Lt Breast contour with field size 5×12
31. Figure B.11 Rt Breast image with field size 5×15
32. Figure B.12 RLt Breast contour with field size 5×15
33. Figure B.13 Lt Breast image with field size 5×14
34. Figure B.14 Lt Breast contour with field size 5×14
35. Figure B.15 Rt Breast image with field size 6.5×16
36. Figure B.16 Rt Breast contour with field size 6.5×16
37. Figure B.17 Rt Breast image with field size 5×15
38. Figure B.18 Rt Breast contour with field size 5×15
39. Figure B.19 Rt Breast image with field size 5×15
40. Figure B.20 Rt Breast contour with field size 5×15
41. Figure B.21 Rt Breast image with field size 5×15
42. Figure B.22 Rt Breast contour with field size 5×15
43. Figure B.23 Rt Breast image with field size 5×17
44. Figure B.24 Rt Breast contour with field size 5×17
45. Figure B.25 Lt Breast image with field size 5×14
46. Figure B.26 Lt Breast contour with field size 5×14
47. Figure B.27 Lt Breast image with field size 5.5×15
48. Figure B.28 Lt Breast contour with field size 5.5×15
49. Figure B.29 Rt Breast image with field size 9.5×16
50. Figure B.30 Rt Breast contour with field size 9.5×16
51. Figure B.31 Rt Breast image with field size 6×14
52. Figure B.32. Rt Breast contour with field size 6×14
53. Figure B.33  Rt Breast image  with field size 5×14

54. Figure B.34  Rt Breast contour with field size 5×14

55. Figure B.35  Rt Breast image  with field size 5×15

56. Figure B.36  Rt Breast contour with field size 5×15

57. Figure B.37  Rt Breast image  with field size 6.5×16

58. Figure B.38  Rt Breast contour with field size 6.5×16

59. Figure B.39  Rt Breast image  with field size 5×14

60. Figure B.40  Rt Breast contour with field size 5×14

61. Figure B.41  Lt Breast image  with field size 5×15

62. Figure B.42  Lt Breast contour with field size 5×15

63. Figure B.43  Lt Breast image  with field size 7×14

64. Figure B.44  Lt Breast contour with field size 7×14

65. Figure B.45  Lt Breast image  with field size 5×16

66. Figure B.46  Lt Breast contour with field size 5×16

67. Figure B.47  Lt Breast image  with field size 7×14

68. Figure B.48  Lt Breast contour with field size 7×14

69. Figure B.49  Lt Breast image  with field size 5×14

70. Figure B.50  Lt Breast contour with field size 5×14

71. Figure B.51  Lt Breast image  with field size 7×16

72. Figure B.52  Lt Breast contour with field size 7×16

73. Figure B.53  Rt Breast image  with field size 7×15
74. Figure B.54 Rt Breast contour with field size 7×15
75. Figure B.55 Rt Breast image with field size 7×15
76. Figure B.56 Rt Breast contour with field size 7×15
77. Figure B.57 Lt Breast image with field size 7×15.5
78. Figure B.58 Lt Breast contour with field size 7×15.5
79. Figure B.59 Lt Breast image with field size 7×14
80. Figure B.60 Lt Breast contour with field size 7×14
81. Figure B.61 Rt Breast image with field size 7×16
82. Figure B.62 Rt Breast contour with field size 7×16
83. Figure B.63 Rt Breast image with field size 11×19
84. Figure B.64 Rt Breast contour with field size 11×19
85. Figure B.65 Lt Breast image with field size 5×14
86. Figure B.66 Lt Breast contour with field size 5×14
87. Figure B.67 Lt Breast image with field size 6×14
88. Figure B.68 Lt Breast contour with field size 6×14
89. Figure B.69 Lt Breast image with field size 5×16
90. Figure B.70 Lt Breast contour with field size 5×16
91. Figure B.71 Lt Breast image with field size 7×16.5
92. Figure B.72 Lt Breast contour with field size 7×16.5
<table>
<thead>
<tr>
<th>Figure Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>93.</td>
<td>Figure B.73  Rt Breast image  with field size 7×15</td>
</tr>
<tr>
<td>94.</td>
<td>Figure B.74 Rt Breast contour with field size 7×15</td>
</tr>
<tr>
<td>95.</td>
<td>Figure B.75  Lt Breast image  with field size 7×15.5</td>
</tr>
<tr>
<td>96.</td>
<td>Figure B.76 Lt Breast contour with field size 7×15.5</td>
</tr>
<tr>
<td>97.</td>
<td>Figure B.77 Lt Breast image  with field size 7×16</td>
</tr>
<tr>
<td>98.</td>
<td>Figure B.78 Lt Breast contour with field size 7×16</td>
</tr>
<tr>
<td>99.</td>
<td>Figure B.79  Lt Breast image  with field size 7×16</td>
</tr>
<tr>
<td>100.</td>
<td>Figure B.80 Lt Breast contour with field size 7×16</td>
</tr>
<tr>
<td>101.</td>
<td>Figure B.81 Lt Breast image  with field size 7.5×16</td>
</tr>
<tr>
<td>102.</td>
<td>Figure B.82 Lt Breast contour with field size 7.5×16</td>
</tr>
<tr>
<td>103.</td>
<td>Figure B.83  Lt Breast image  with field size 6×16</td>
</tr>
<tr>
<td>104.</td>
<td>Figure B.84 Lt Breast contour with field size 6×16</td>
</tr>
<tr>
<td>105.</td>
<td>Figure B.85 Lt Breast image  with field size 7×16</td>
</tr>
<tr>
<td>106.</td>
<td>Figure B.86 Lt Breast contour with field size 7×16</td>
</tr>
<tr>
<td>107.</td>
<td>Figure B.87 Rt Breast image  with field size 5×15</td>
</tr>
<tr>
<td>108.</td>
<td>Figure B.88 Rt Breast contour with field size 5×15</td>
</tr>
<tr>
<td>109.</td>
<td>Figure B.89 Rt Breast image  with field size 10×19 .109</td>
</tr>
<tr>
<td>110.</td>
<td>Figure B.90 Rt Breast contour with field size 10×19 .110</td>
</tr>
<tr>
<td>111.</td>
<td>Figure B.91 Lt Breast image  with field size 7×16 .111</td>
</tr>
<tr>
<td>112.</td>
<td>Figure B.92 Lt Breast contour with field size 7×16 .112</td>
</tr>
<tr>
<td>113.</td>
<td>Figure B.93 Lt Breast image  with field size 7×16 .113</td>
</tr>
<tr>
<td>114.</td>
<td>Figure B.94 Lt Breast contour with field size 7×16 .114</td>
</tr>
</tbody>
</table>
Figure B.95 Lt Breast image  with field size 5×14 .115

Figure B.96 Lt Breast contour with field size 5×14 .116

Figure B.97 Lt Breast image  with field size 5×16 .117

Figure B.98 Lt Breast contour with field size 5×16 .118

Figure B.99 Lt Breast image  with field size 5×14 .119

Figure B.100 Lt Breast contour with field size 5×14 .120
Dedication

To My:

Father
Mother
Brothers
Sister
Husbands’
Daughters
Teachers
Friends
Colleges
Students
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