

# Chapter 4

## BASIS OF DIAGNOSIS

Basis of diagnosis is an important item of information that depicts quality of data. A microscopic confirmation of cancer is almost always required before initiation of cancer directed treatment.

The basis of diagnosis of cancers registered at the various HBCRs is shown in Table 4.1 and depicted as Pie (Π) diagrams in Figure 4.1. The proportion of microscopic confirmation was above 90% in both sexes in all HBCRs, except in Chennai where it was 79.0% in males and 85.6% in females.

Table 4.2 and Figs. 4.2 and 4.3 give further details of microscopically verified cancers by various types of microscopic diagnosis. Primary Histology was the predominant form of microscopic diagnosis in all registries in both sexes. The percentage of diagnoses based on Cytology was highest in Bangalore with 32.7% in males and 20.6% in females in Chandigarh.

**Table 4.1: Number (#) and Relative Proportion (%) of Cancers Based on Different Methods of Diagnosis**

Registry	Microscopic		All Imaging Techniques		Clinical		Others		Total	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Mumbai	21072	93.3	1395	6.2	40	0.2	71	0.3	22580	100.0
Bangalore	10655	94.5	177	1.6	236	2.1	41	0.4	11273	100.0
Chennai	12422	79.0	1748	11.1	1258	8.0	303	1.9	15731	100.0
Thi'puram	17862	92.9	1011	5.3	252	1.3	85	0.4	19219	100.0
Dibrugarh	2705	93.4	153	5.3	8	0.3	29	1.0	2895	100.0
Guwahati	6219	91.4	393	5.8	79	1.2	112	1.6	6803	100.0
Chandigarh	2570	97.2	68	2.6	-	-	3	0.1	2643	100.0
<b>FEMALES</b>										
Mumbai	17361	93.7	1097	5.9	26	0.1	43	0.2	18528	100.0
Bangalore	12423	94.7	116	0.9	298	2.3	41	0.3	13125	100.0
Chennai	14973	85.6	1040	5.9	1328	7.6	158	0.9	17499	100.0
Thi'puram	18196	96.7	390	2.1	194	1.0	29	0.2	18809	100.0
Dibrugarh	2039	89.6	182	8.0	8	0.4	47	2.1	2276	100.0
Guwahati	4294	91.8	289	6.2	66	1.4	30	0.6	4679	100.0
Chandigarh	2047	97.8	45	2.2	-	-	-	-	2092	100.0

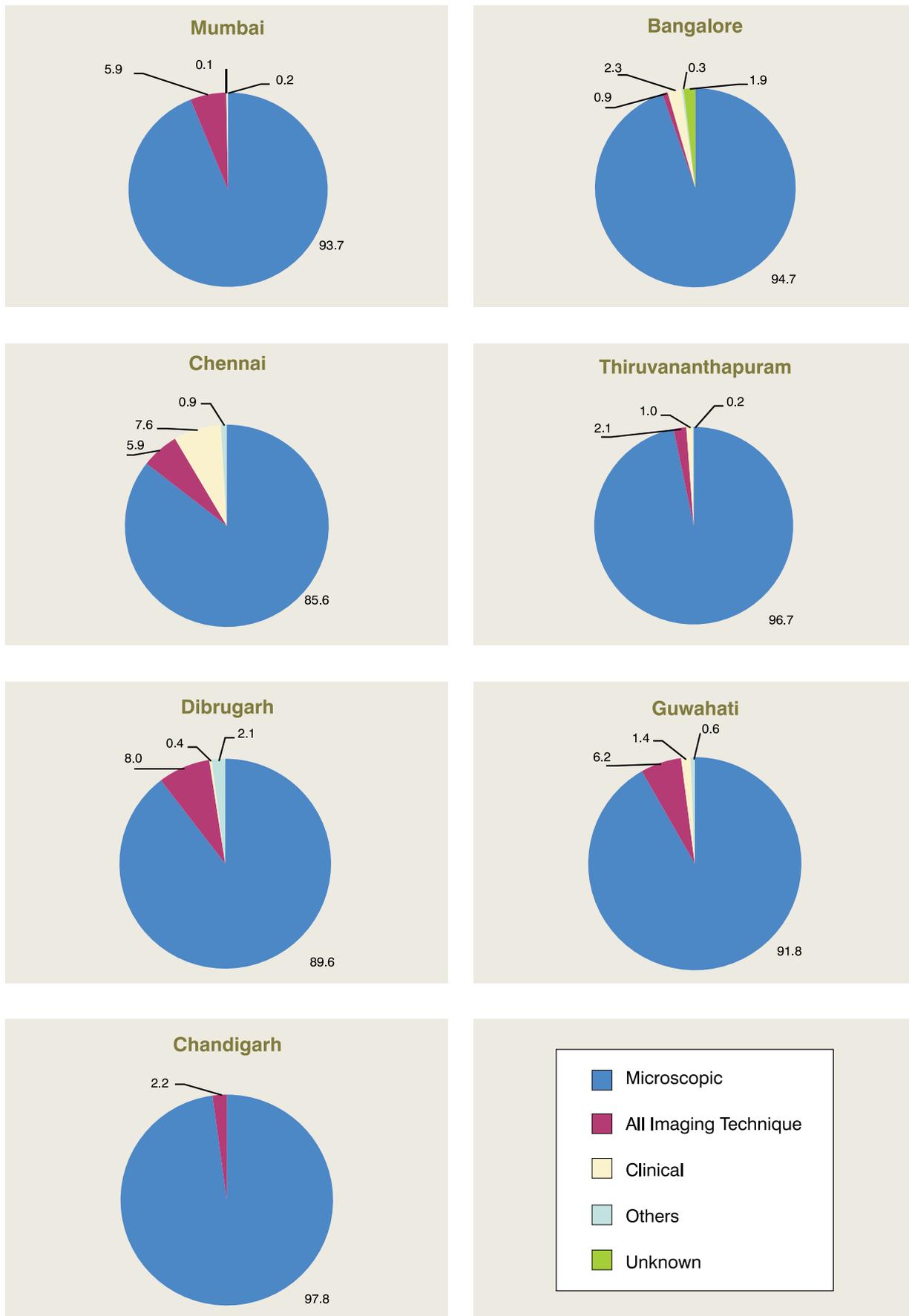
**Fig. 4.1(a): Pie Diagram Showing Proportion (%) of Patients according to Method of Diagnosis (2007-2011)**

**Males**



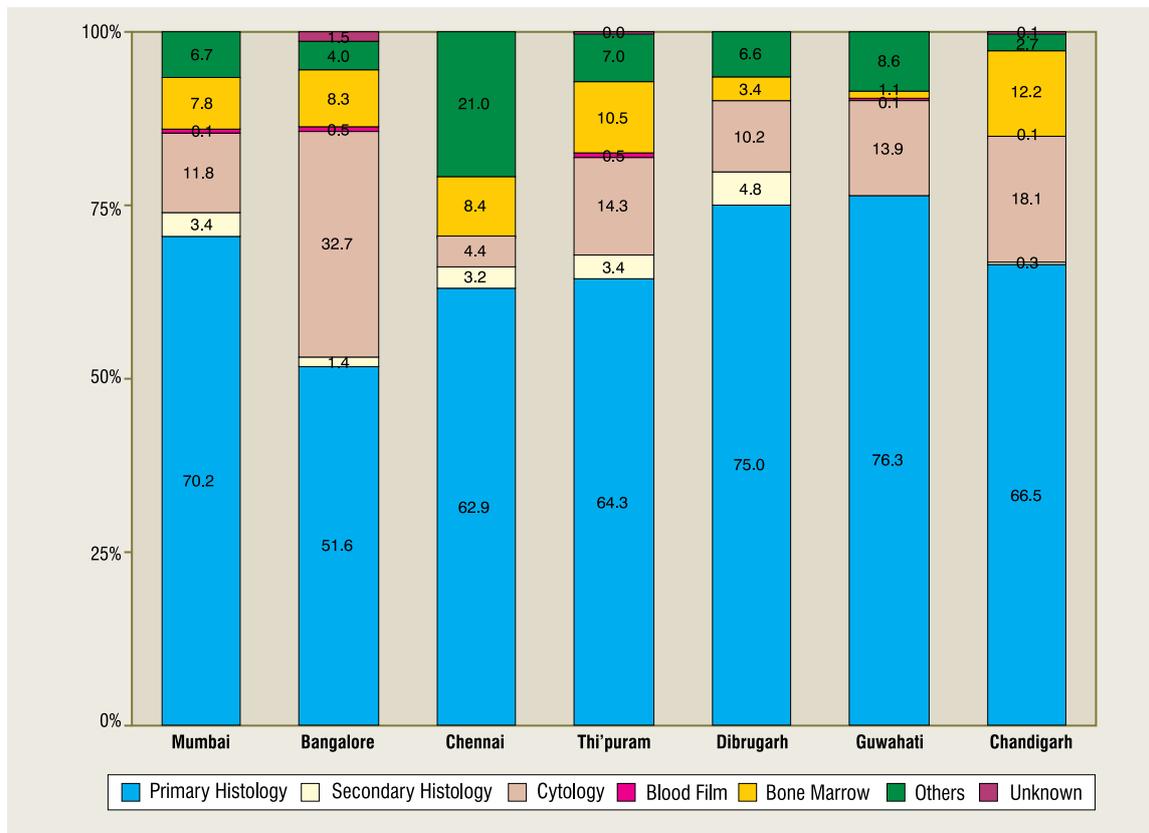
**Fig. 4.1(b): Pie Diagram Showing Proportion (%) of Patients according to Method of Diagnosis (2007-2011)**

**Females**

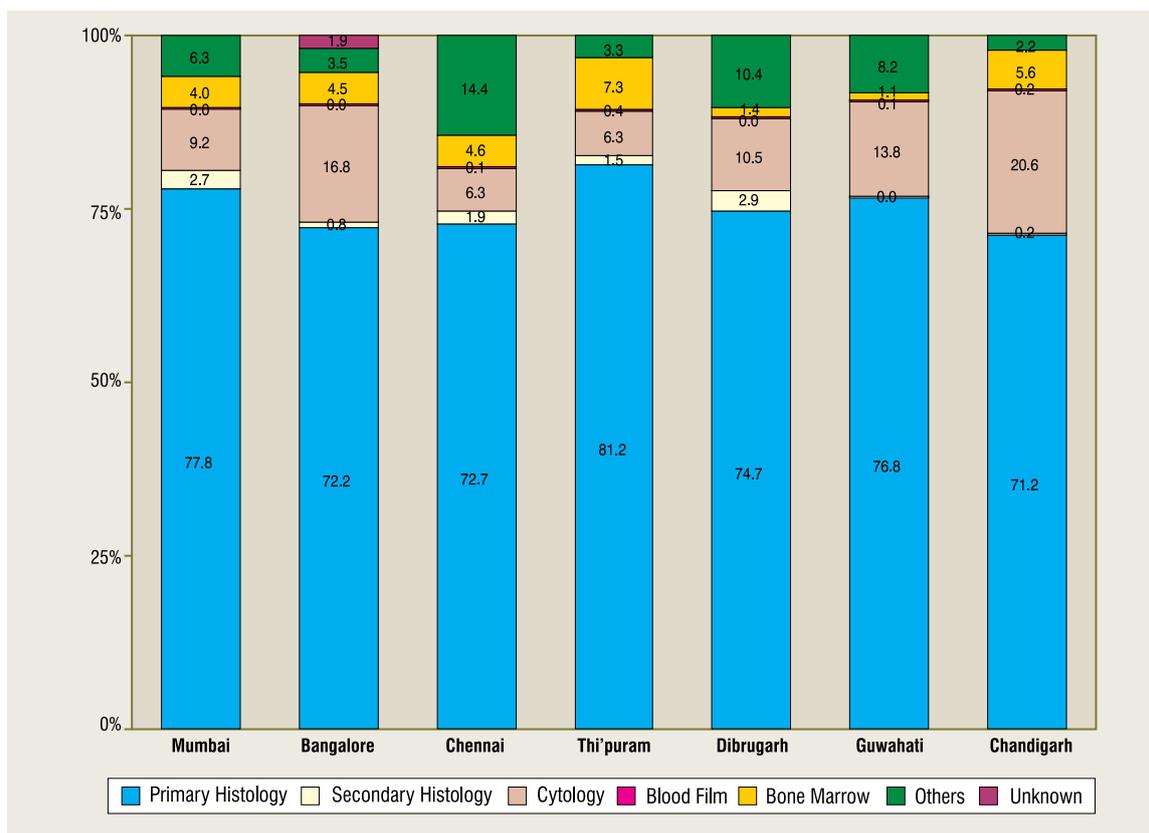


**Fig. 4.2: Stack (100%) Diagram Showing Proportion (%) of Microscopically Diagnosed Patients according to Specific Microscopic Diagnosis (2007-2011)**

**Males**



**Females**



**Table 4.2: Number (#) and Relative Proportion (%) of Cancers based on Different Types of Microscopic Diagnosis (2007-2011)**

Type of Microscopic Diagnosis	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh		Guwahati		Chandigarh	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
<b>MALE</b>														
Primary Histology	15840	70.2	5813	51.6	9895	62.9	12349	64.3	2172	75.0	5189	76.3	1757	66.5
Secondary Histology	777	3.4	162	1.4	507	3.2	657	3.4	140	4.8	-	-	9	0.3
Cytology	2672	11.8	3686	32.7	692	4.4	2749	14.3	296	10.2	949	13.9	479	18.1
Blood Film	14	0.1	55	0.5	7	0.0	88	0.5	-	-	4	0.1	3	0.1
Bone Marrow	1769	7.8	939	8.3	1321	8.4	2019	10.5	97	3.4	77	1.1	322	12.2
Others	1508	6.7	454	4.0	3309	21.0	1348	7.0	190	6.6	584	8.6	71	2.7
Unknown	-	-	164	1.5	-	-	9	0.0	-	-	-	-	2	0.1
<b>All microscopic</b>	<b>22580</b>	<b>100.0</b>	<b>11273</b>	<b>100.0</b>	<b>15731</b>	<b>100.0</b>	<b>19219</b>	<b>100.0</b>	<b>2895</b>	<b>100.0</b>	<b>6803</b>	<b>100.0</b>	<b>2643</b>	<b>100.0</b>
<b>FEMALE</b>														
Primary Histology	14407	77.8	9481	72.2	12719	72.7	15282	81.2	1700	74.7	3592	76.8	1489	71.2
Secondary Histology	504	2.7	106	0.8	330	1.9	279	1.5	67	2.9	2	0.0	5	0.2
Cytology	1706	9.2	2202	16.8	1105	6.3	1181	6.3	238	10.5	646	13.8	430	20.6
Blood Film	6	0.0	37	0.3	10	0.1	76	0.4	1	0.0	3	0.1	5	0.2
Bone Marrow	738	4.0	597	4.5	809	4.6	1378	7.3	33	1.4	51	1.1	118	5.6
Others	1167	6.3	455	3.5	2526	14.4	613	3.3	237	10.4	385	8.2	45	2.2
Unknown	-	-	247	1.9	-	-	-	-	-	-	-	-	-	-
<b>All microscopic</b>	<b>18528</b>	<b>100.0</b>	<b>13125</b>	<b>100.0</b>	<b>17499</b>	<b>100.0</b>	<b>18809</b>	<b>100.0</b>	<b>2276</b>	<b>100.0</b>	<b>4679</b>	<b>100.0</b>	<b>2092</b>	<b>100.0</b>

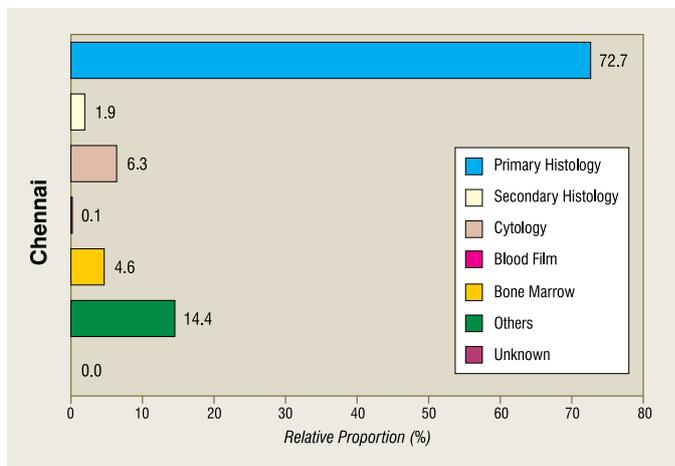
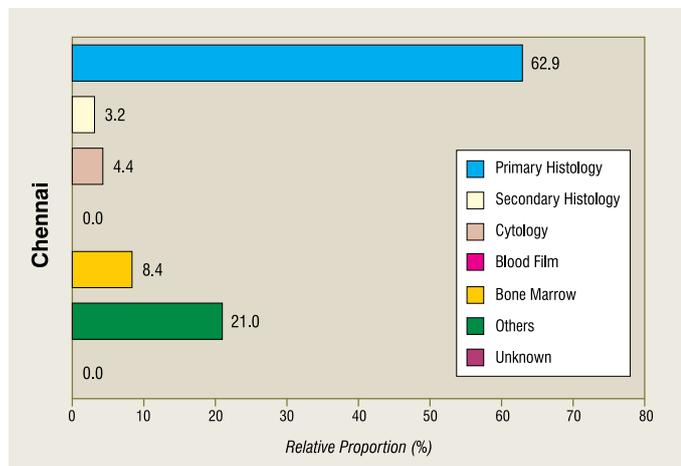
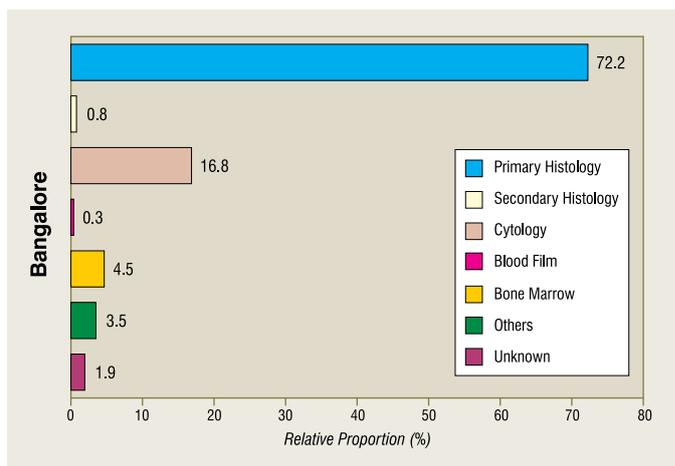
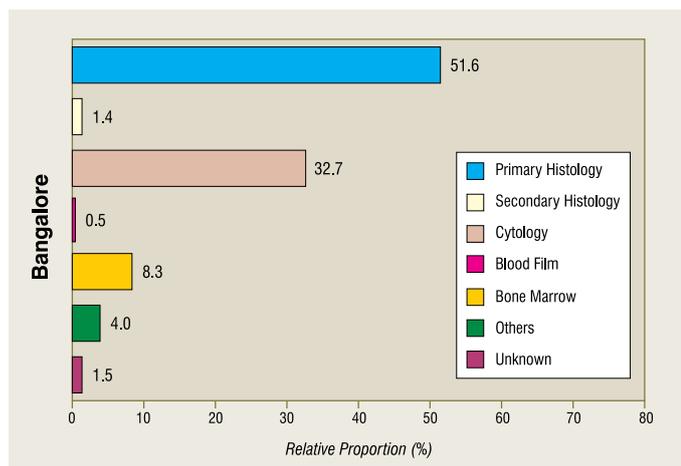
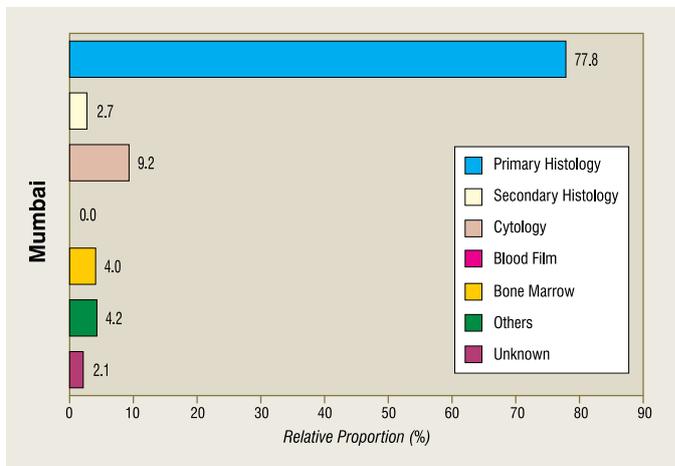
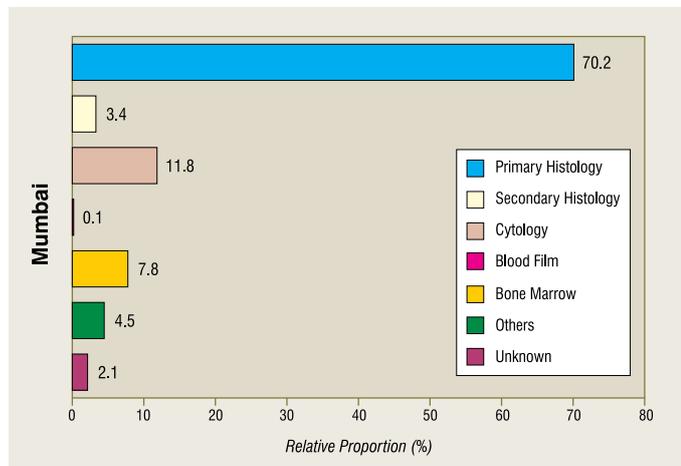
**“Medical education is not completed at medical school. It has only begun.”**

*- William Welch*

**Fig. 4.3: Proportion (%) of Microscopically Diagnosed Patients according to Specific Microscopic Diagnosis (2007-2011)**

**Males**

**Females**



**Fig. 4.3: Proportion (%) of Microscopically Diagnosed Patients according to Specific Microscopic Diagnosis (2007-2011) (contd...)**

**Males**

**Females**

