RESULTS

The studied patient were included in 3 equal groups (50 patients in each, A,B or C) and the distribution of their age and gender were reported in table (I, II & III):

Table (I): The distribution of the age and gender in group (A):

Age	Male	Female	Total	
			No	%
< 10 year	10	10	20	40%
10 – 20 year	10	5	15	30%
20 - < 30 year	12	3	15	30%

Table (II): The distribution of the age and gender in group (B):

Age	Male	Female	Total	
			No	%
30 - < 40	15	10	25	50%
40 - < 50	20	5	25	50%

Table (III): The distribution of the age and gender in group (C):

Age	Male	Female	Total	
			No	%
50 - < 60	11	9	20	40%
60 - < 70	12	3	15	30%
> 70	10	5	15	30%

In each case of 150 cases proctoscopy, colonoscopy, histopathologic examination & A.C.B.E were done and only in obscure or recurrent bleeding the mesenteric angiography was done.

In the 1st age group (group A): < 30 years old, the reported diagnoses were (table IV):

- 20 cases of Juvenile Polyps (JP).
- 15 cases of Hemorrhoids.
- 10 cases of Anal Fissures.
- 5 cases of Familial Adenomatus Polyposis (FAP).
- 2 Peutz Jegher. Syndrome (PJS).

Table (IV): The causes of rectal bleeding in group (A):

Cases	No . of cases	Percentage
1 – Juvenile Polyps	20	40 %
2 – Familial Adenomatus polyposis	3	6 %
3- Hemorrhoids	15	30 %
4 – Anal fissure	10	20 %
5- Peutz Jegher	2	4%
Total	50	100 %

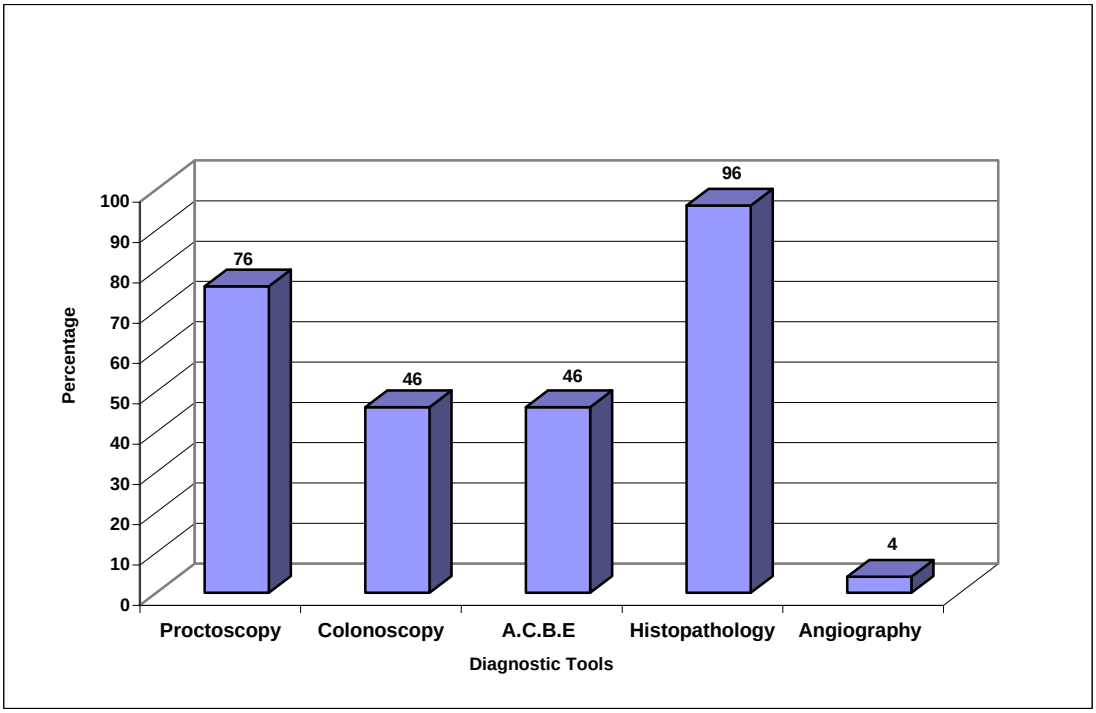
In the 2nd group: diagnostic tools were done and helped in discovering the cause of rectal bleeding as follows (table V).

- Proctoscopy → Hemorrhoids, J.P, FAP.
- Colonoscopy → J.P/ FAP.
- A.C.B.E. → Juvenile polyps and familial Adenomatus polyposis .
- Histopathology → J.P and Anal Fissures, Hemorrhoids, FAP.
- Angiography → P. Jegher's syndrome.

Table (V): Diagnostic tools used in group (A):

Diag . tools	Disease	No.	Total	Percentage
Proctoscopy	Haemorrhoids juvenile polyps and FAP	20+3+15	38	76%
Colonoscopy	juvenile polyps and FAP	20+3	23	46 %
A.C.B.E.	juvenile polyps and F.A.P	3+20	23	46 %
Histopathology	juvenile polyps, F.A.P and Haemorrhoids and Fisurs	10+3+20+15	48	96 %
Angiography	P.Jegher's.	2	2	4 %

Chart (1): Efficacy of diagnostic tools in group (A):



The 2nd group (B: from 30 : < 50 years): The reported diagnoses were (table VI):

- 15 cases → Hemorrhoids.
- 10 cases → Bilharzial polyps.
- 5 cases → Malignant ulcers.
- 5 cases → Villous adenenomas.
- 5 cases → Anal fissures.
- 5 cases → Diverticulosis.
- 3 cases → Angiodysplasia.
- 2 cases → Crohn's colitis.

Table (VI): Causes of rectal bleeding in group (B):

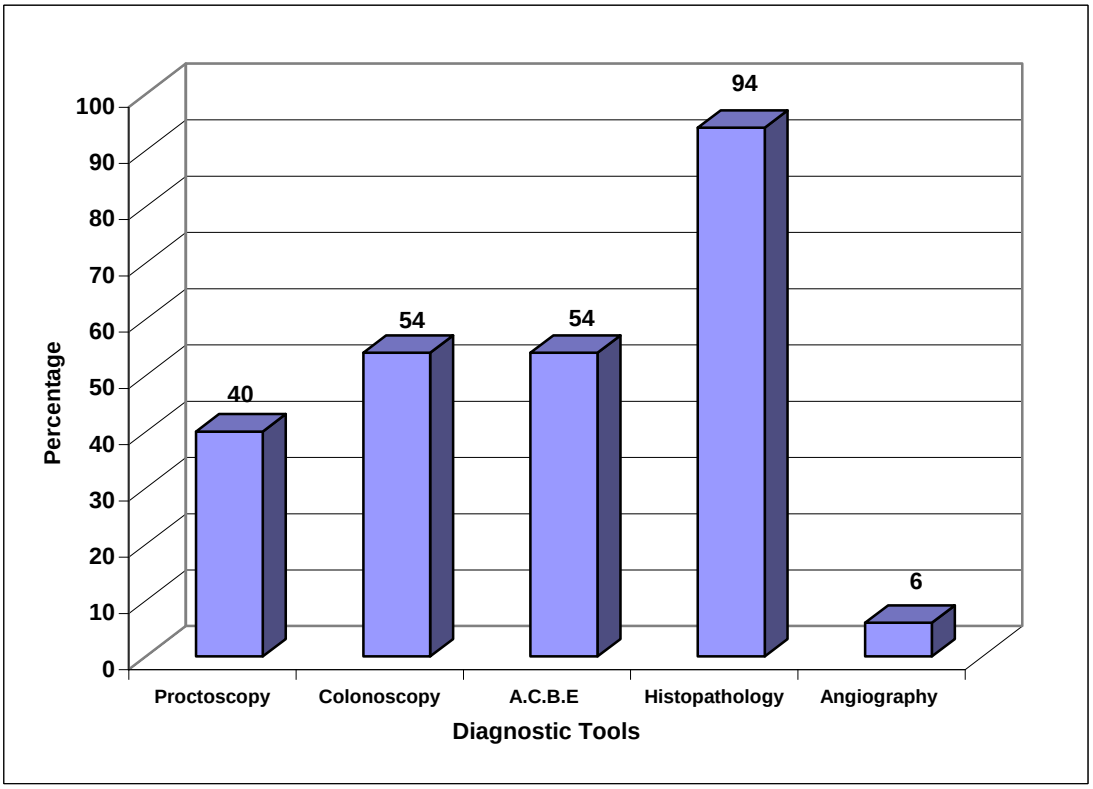
Disease	No. cases	Percentage
1- Haemorrhoids	15	30 %
2 – Bliharzial polyps	10	20 %
3 – Malignant ulcers.	5	10 %
4 – Villous adenenomas	5	10 %
5 – Anal fissures	5	10 %
6 – Diverticulosis	5	10 %
7- Angiodysplasia	3	6%
8 – Crohn's colitis	2	4 %
Total	50	100 %

- Proctoscopy → Haemorrhoids, Low Malignant ulcer.
- Colonoscopy → Crohn's, Bilharzial P, Malignant ulcer, Villous adenenomas, Diverticulits.
- A.C.B.E → Ulcerative colitis, Crohn's colitis, Bilharzial polyps, Malignant ulcer, Villous adenenomas, Diverticulits.
- Histopathology → as all except (Angiodysplasia).
- Angiography → (Angiodysplasia).

Table (VII): Diagnostic tools used in group (B):

D . tools	Disease	No	Percentage
Proctoscopy	Haemorrhoids and Malignant ulcer	20	40%
Colonoscopy	Crohn's colitis, Villous adenomas, Diverticulosis Malignant ulcer and Bilharzial polyps.	27	54 %
A.C.B.E.	Crohn's colitis, villous adenomas, Diverticulosis Malignant ulcer and Bilharzial polyps.	27	54%
Histopathology	all except angiodysplasia	47	94 %
Angiography	Angiodsplasia	3	6 %

Chart (2): Efficacy of diagnostic tools in group (B):



The 3rd (group C above 50 years) the cause of rectal bleeding was:

1- 25 cases → Malign. Ulcers.

2- 10 cases → Hemorrhoids.

3- 6 cases → Ischamic Colitis.

4- 5 cases → Ulc . Colitis.

5- 2 cases → Chron's.

6- 2 cases → Angiodysplasia.

Table (VIII): Causes of rectal bleeding in group (C):

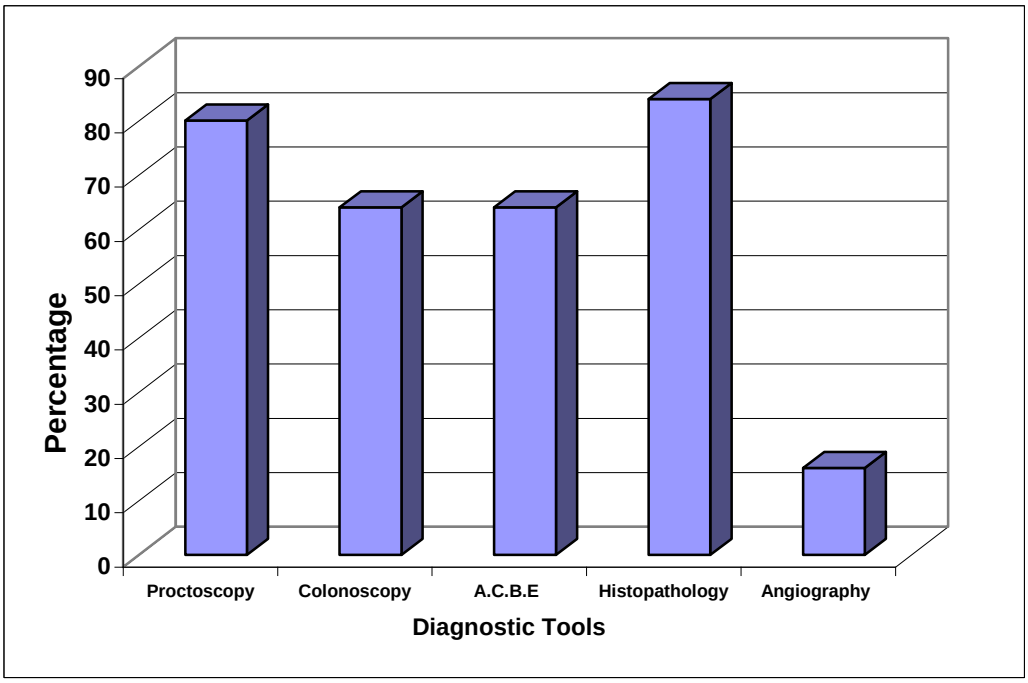
Dise.	No. cases	Percentage
Malignant Ulcer	25	50 %
Hemorrhoids	10	20 %
Ischamic Colitis	6	12 %
Ulcerative Colitis	5	10 %
Crohn's colitis	2	4 %
Angiodysplasia	2	4 %
Total	50	100 %

- Proctoscopy →Malignant ulcers, Ulcerative colitis, and Haemorrhoids.
- Colonoscopy → Malignant ulcers, Ulcerative colitis and Crohn's colitis.
- A.C.B.E → Malignant ulcers, Ulcers colitis and Crohn's colitis.
- Histopathology → effective in all causes except angiodysplasia & ischamic colitis. (Angiodysplasia & ischamic colitis).
- Angiography → angiodysplasia & Ischamic colitis.

Table (IX): Diagnostic tools used in group C

D . tool	Disease	No	Percentage
Proctoscopy	Malignant ulcers, Ulcerative colitis, haemorrohids.	40	80 %
Colonoscopy	Malignant ulcers, Ulcerative colitis, Cronh's colitis.	32	64%
A.C.B.E.	Malignant ulcers, Ulcerative colitis, Cronh's colitis.	32	64 %
Histopathology	All except : - Angiodysplasia. - Ischamic colitis.	42	84 %
Angiography	- Angiodysplasia. - Ischamic colitis.	8	16%

Chart (3): Efficacy of diagnostic tools in group (C):



Evaluation of the five diagnostic tools :

1- Histopathology from exposed lesion as piles or fissures, directly or via colonoscopy or proctoscopy is the surest diagnosis.

2- Angiography is a good tool, but it is expensive and should be used in cases of bleeding per rectum of obscure origin or massive bleeding.

N.B.: The efficacy of the 5 diagnostic tools is influenced not only by the accuracy of the diagnosis but also by the availability of the diagnostic tools and its cost.

3- Colonoscopy is also good but contraindicated in some cases (as acute colitis).

4- Colonoscopy & Histopathologic examination is 100% diagnostic in the studied cases.

5- A.C.B. E. / If no contra indication it is acts as colonoscopy and shows fine details of mucosa.

Table (X): Comparison between colonoscopy and angiography in diagnosis of rectal bleeding:

	Coast	Contraindications
Colonoscopy	Less Expensive	Acute cases
Angiography	Expensive	Minimal bleeding

While other tools may be accurate but have some defects:

- A.C.B.E is accurate but is limited in showing the gross pictures with little details of the lumen.
- Histopathology is accurate but may be taken from non pathological site.

Table (XI): Comparison between A.C.B.E. and histopathologyical examination in diagnosis of rectal bleeding:

	Fine details	Negative Results
A.C.B.E	Less	Bad preparation
Histopathology	Good Microscopic pictures	If taken from non pathological site

According to these results we found that :

The most accurate tools is a compintation of colonoscopy or proctoscopy and histapathological examination.

Follows these tools the colonoscopy alone or proctoscopy in low causes then A.C.B.E.

The angiography is an accurate tool of diagnosis only in undetectable causes of bleeding or in massive bleeding, but it is expensive.