RESEARCH ARTICLE

PREVALENCE OF HEMORRHOIDS AND ASSOCIATED COMPLICATIONS IN KINGDOM OF SAUDI ARABIA

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Introduction:
Hemorrhoids are swollen veins located around the anus or in the lower rectum. About 50 percent of adults experienced the symptoms of hemorrhoids by the age of 50. Hemorrhoids can either be internal or external. Internal hemorrhoids develop within the anus or rectum.

Rationale:
This research will add new findings on the prevalence of hemorrhoids in the general population to this time and the associated complications. Also, it is important to know the extent of intellectual awareness of this subject, as shyness from a clinical medical examination may increase the incidence of complications.

Research question:
Questionnaire.

Aim:
To determine the prevalence of hemorrhoid and associated complications.

Objective:
The main objective:
To determine the prevalence of hemorrhoid and associated complications

The sub-objectives:
1. To identify the most gender affected.
2. To identify the most affected type of hemorrhoids.
3- To identify the most symptoms associated with hemorrhoids.
4- To see how much the general public expresses intellectual awareness about the:
   a) Most common cause of hemorrhoids.
   b) Do not go to the doctor because of feeling ashamed.

**Method and Design:**

**Study design:**
Cross sectional study.

**Study area:**
Kingdom of Saudi Arabia

**Study setting:**
The study will be carried out by questionnaire.

**Study population:**

**Inclusion criteria:**
Adult general population

**Exclusion criteria:**
non

**Data Collection Methods:**

**Data collection tool:**
Self-administered questionnaire partially constructed by the researcher with reference to already made questionnaire in another study. Validity will be checked by an consultant.

**Data collection technique:**
The researcher will distribute the questionnaire.

**Study sample and technique:**
Questionnaire from the general adult population

**Sample size:**
1172

**Sample technique:**
Questionnaire.

**Data entry and statistical analysis:**
The data will be entered into a personal computer and it will be analyzed using Statistical Package for the Social Sciences (SPSS).

**Results:**
Questionnaire of the prevalence of hemorrhoids and associated complications in an adult general population.

1172 responses were collected showing the following results and conclusion:
The results indicate that most respondents are females.

The results show that most of the respondents are between 18-34 years old.
The results showed that the majority of the marital status of the respondents are either married or single in equal proportions.

The results show that most of the respondents are Saudis.
The results showed that 27% of the respondents had hemorrhoids.

| What type of hemorrhoids infected? | Frequency | Percent | Valid Percent | Cumulative Percent |
|-----------------------------------|-----------|---------|---------------|--------------------|
| Valid Internal hemorrhoid         | 112       | 9.6     | 31.9          | 31.9               |
| Valid External hemorrhoid         | 223       | 19.0    | 63.5          | 95.4               |
| Valid Thrombosed hemorrhoid       | 16        | 1.4     | 4.6           | 100.0              |
| Valid Total                       | 351       | 29.9    | 100.0         |                    |

The results showed most of the respondents who have hemorrhoids they suffer from external hemorrhoid.

The results showed most of the respondents who have hemorrhoids feel pain.
The results showed most of the respondents who have hemorrhoids feel itchy.

| Do you feel itchy? | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------------|-----------|---------|---------------|--------------------|
| Valid No           | 171       | 14.6    | 44.3          | 44.3               |
| Yes                | 215       | 18.3    | 55.7          | 100.0              |
| Total              | 386       | 32.9    | 100.0         |                    |

The results showed most of the respondents who have hemorrhoids do not feel burning sensation during micturition.

| Do you feel burning sensation during micturition? | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------------------------------------------|-----------|---------|---------------|--------------------|
| Valid No                                         | 269       | 23.0    | 70.1          | 70.1               |
| Yes                                              | 115       | 9.8     | 29.9          | 100.0              |
| Total                                            | 384       | 32.8    | 100.0         |                    |

The results showed that most of the respondents suffering from hemorrhoids had suffered from it for more than two years.

| Since when you suffer from it? | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------------------------|-----------|---------|---------------|--------------------|
| Valid < 6 months               | 80        | 6.8     | 22.0          | 22.0               |
| 1-2 years                      | 96        | 7.3     | 23.7          | 45.7               |
| > 2 years                      | 197       | 16.8    | 54.3          | 100.0              |
| Total                          | 363       | 31.0    | 100.0         |                    |

The results showed that most of the respondents suffering from hemorrhoids do not suffer from complications of hemorrhoids.

| Do you suffer from complications of hemorrhoids? | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------------------------------------------|-----------|---------|---------------|--------------------|
| Valid No                                         | 168       | 14.3    | 44.0          | 44.0               |
| Yes                                              | 68        | 7.5     | 23.0          | 67.0               |
| I don't know                                     | 126       | 10.8    | 33.0          | 100.0              |
| Total                                            | 362       | 32.6    | 100.0         |                    |
The results showed that the most common type of complication in patients with hemorrhoids is ulceration and severe hemorrhage.

| Complication          | Frequency | Percent | Valid Percent | Cumulative Percent |
|-----------------------|-----------|---------|---------------|--------------------|
| Valid                 | 208       | 17.7    | 59.8          | 59.8               |
| Ulceration            | 43        | 3.7     | 12.4          | 72.1               |
| Anemia                | 21        | 1.8     | 6.0           | 78.2               |
| Severe hemorrhage     | 43        | 3.7     | 12.4          | 72.1               |
| Strangulated hemorrhoid| 28       | 2.4     | 8.0           | 86.2               |
| Fibrosis              | 7         | .6      | 2.0           | 100.0              |
| Total                 | 348       | 29.7    | 100.0         |                    |

The results showed that most of the respondents were not treated and those who were treated were treated with medication.

| Treatment Plan        | Frequency | Percent | Valid Percent | Cumulative Percent |
|-----------------------|-----------|---------|---------------|--------------------|
| Valid                 | 197       | 18.8    | 52.5          | 52.5               |
| By medication         | 120       | 10.2    | 32.0          | 84.5               |
| By surgery            | 58        | 4.9     | 15.5          | 100.0              |
| Total                 | 375       | 32.0    | 100.0         |                    |

The results showed that most of the respondents believed that the most important reason behind hemorrhoids is chronic diarrhea or constipation.
The results showed that the majority of respondents did not find any embarrassment in going to the doctor for examination.

Correlations:

|                                | What is your treatment plan? | Do you feel burning sensation during micturition? |
|--------------------------------|------------------------------|-----------------------------------------------|
| **What is your treatment plan?** | Pearson Correlation          | 1                                             |
| Sig. (2-tailed)                 |                               | .122*                                          |
| N                               | 375                           | .019                                          |
| **Do you feel burning sensation during micturition?** | Pearson Correlation          | .122*                                          |
| Sig. (2-tailed)                 |                               | .019                                          |
| N                               | 380                           | 384                                           |

* Correlation is significant at the 0.05 level (2-tailed).

P value is 0.019 which means there is a strong relationship between the treatment plan and feeling burning sensation during micturition.
P value is 0.000 which means there is a strong relationship between feeling pain and itchy.

P value is 0.000 which means there is a strong relationship between feeling pain and suffering from hemorrhoid.

P value is 0.000 which means there is a strong relationship between feeling pain and suffering from complications of hemorrhoid.
P value is 0.003 which means there is a strong relationship between suffering from hemorrhoid and the treatment plan.

### Discussion:

This study was based on a number of 1172 participants, from this study as the number of females is 905 and males is 267 and 322 of them suffer from hemorrhoids which is considering as unhealthy sign requires going to the doctor for a health check-up..

The current study showed statistically significant (P value is 0.000) which means which means there is a strong relationship between feeling pain and itchy, (P value is 0.019) which means there is a strong relationship between the treatment plan and feeling burning sensation during micturition.

(P value is 0.000) which means there is a strong relationship between feeling pain and suffering from hemorrhoid.

### Conclusion:

The results showed very positive results due to the low percentage of people with hemorrhoids. People with hemorrhoids experience many symptoms, including itching and pain.

Hemorrhoids cause many complications, including severe bleeding and ulceration. Most people with hemorrhoids have been treated with medication.
40% of the respondents think that the most important cause of hemorrhoids is having chronic diarrhea or constipation.

**Recommendation:**
We recommend setting up health education programs about the hemorrhoids. This health problem must be presented broadly and beneficially and, in a way, that everyone understands, as most deal with the hemorrhoids by ignoring and not being important, work should be done on health conferences and medical discussions on that.

**Acknowledgement:**
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**Ethical consideration:**
· Individual consent from participants (written on the front page of the questionnaire).
· All information will be kept confidential.

**Budget:**
Self funded
This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

**Appendices:**
( Questionnaire )

Questionnaire of the prevalence of hemorrhoids and associated complications in an adult general population.

1- Gender: الجنس
   - Female / أنثى
   - Male / ذكر

2- Age: العمر
   - 18-24 years old
   - 25-34 years old
   - 35-44 years old
   - 45-54 years old
   - 55-64 years old
   - 65-74 years old
   - 75 years or older

3- Marital status: الحالة الاجتماعية
   - Single
   - Married
   - Widowed
   - Divorced
   - Separated

4- Nationality: الجنسية :

5- Do you suffer from hemorrhoids? هل تعاني من البواسير؟
   - Yes / نعم
   - No / لا
If your answer is (YES), go to section (2) then (3) \ if your answer is (NO), go to section (3) direct.

6- What type of hemorrhoids infected؟
- Internal hemorrhoid
- External hemorrhoid
- Thrombosed hemorrhoid

7- Do you feel pain؟
- Yes / نعم
- No / لا

8- Do you feel itchy؟
- Yes / نعم
- No / لا

9- Do you feel burning sensation during micturition؟
- Yes / نعم
- No / لا

10- Since when you suffer from it؟
- < 6months
- 1-2 years
- > 2years

11- Do you suffer from complications of hemorrhoids؟
- Yes / نعم
- No / لا
- I don't know لا اعلم

12- Determine the complications you are experiencing
- Severe hemorrhage
- Anemia
- Strangulated hemorrhoid
- Ulceration
- Fibrosis
- Nothing

13- What is your treatment plan؟
- By medication
- By surgery
- I didn't treat that
These are general questions, please answer them whether you are suffer from hemorrhoids or don't suffer.

14- Since when you suffer from it?

- Straining during bowel movements
- Sitting for long periods of time on the toilet
- Having chronic diarrhea or constipation
- Being obese
- Being pregnant
- Straining during bowel movements
- Sitting for long periods of time on the toilet
- Having chronic diarrhea or constipation
- Being obese
- Being pregnant
- Regular heavy lifting

15- I will not go to the doctor because of my shyness during medical examination

- Strongly disagree
- Disagree
- Strongly agree
- Agree

Thank you..