

# Case-Control Study of Prostate Cancer Risk Factors

**Background:** Prostate cancer morbidity is number one and its mortality is the second-leading cancer in men in the United States.

Despite the voluminous researches, the etiology and prevention of prostate cancer is not established.

**Hypothesis:** There is an association between prostate cancer and high fat diet.

**Objective:** is to conduct case-control study of prostate cancer risk factors.

**Methods:** 100 pathological confirmed cases of prostate cancer and 100 matched confirmed controls without pathological evidence of prostate cancer were obtained from Department of Urology of V. A. Medical Center, East Orange, NJ.

## **Exclusion criteria:**

Patients with immunodeficiency diseases, persons with any other cancer and patient with life expectancy less than 6 months were excluded from the study.

## **Matching criteria:**

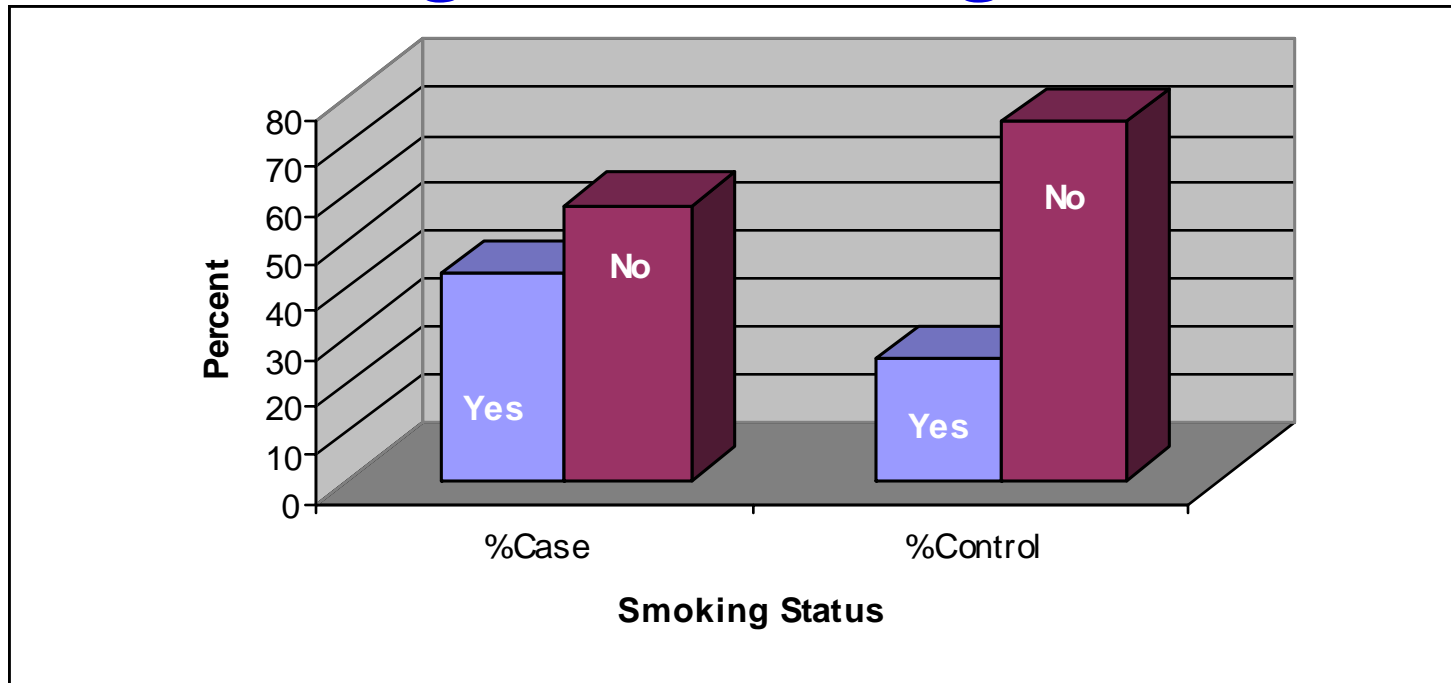
One case was matched with one control by race & age (+/- 3 years).

## **Research Instrument:**

Included standard dietary, demographic, socio-economic, occupation and lifestyle questionnaire.

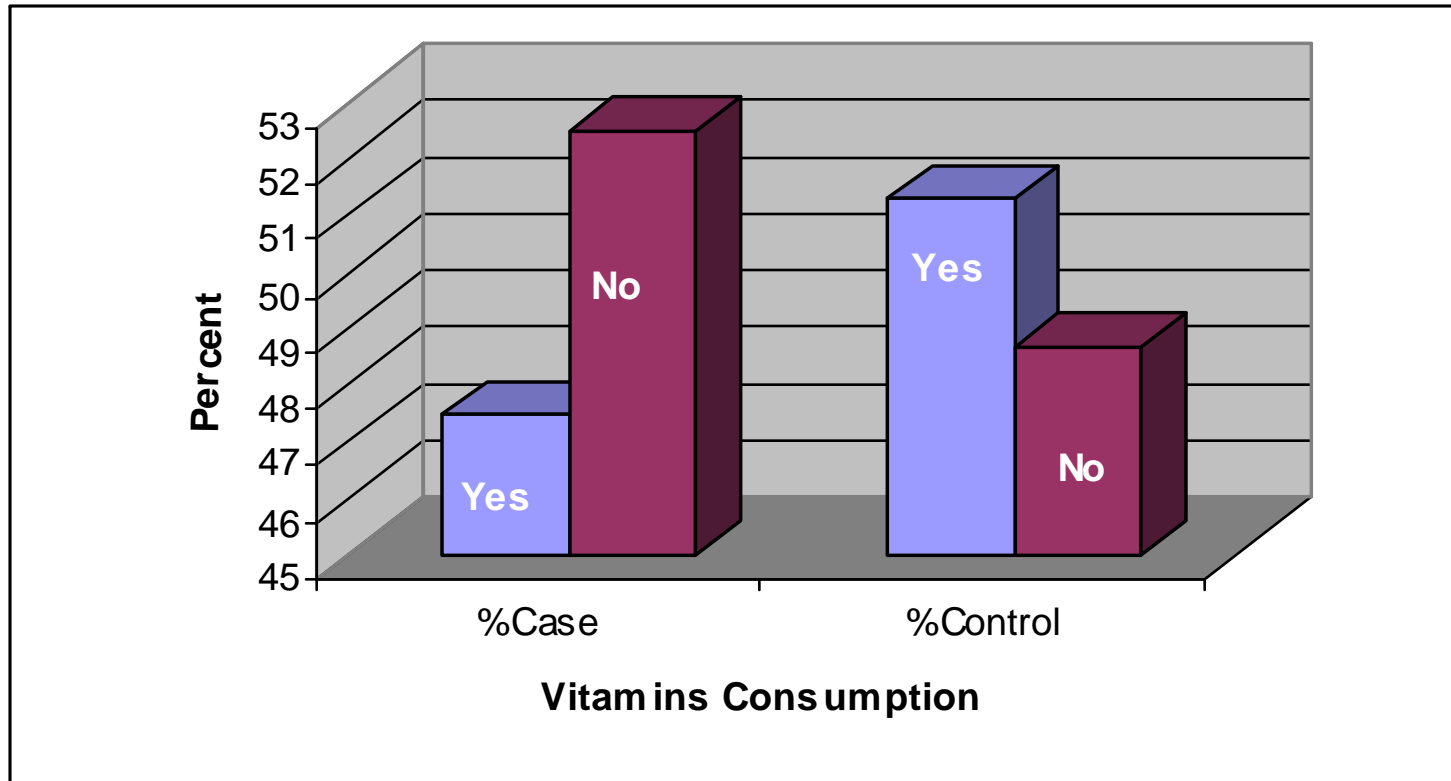
# Results:

## Figure-1 Smoking Status



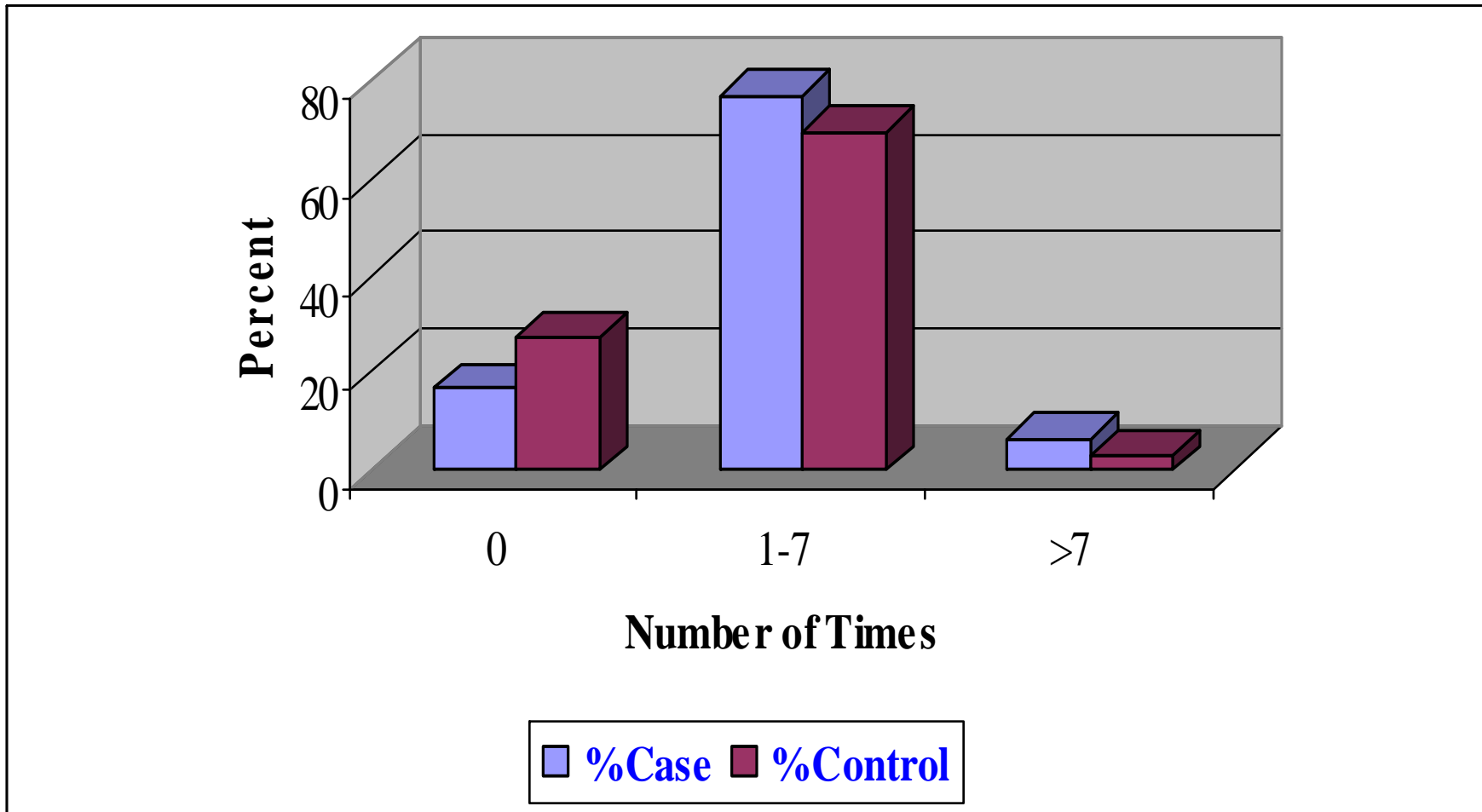
P = .02

## Figure-2 Vitamins Consumption



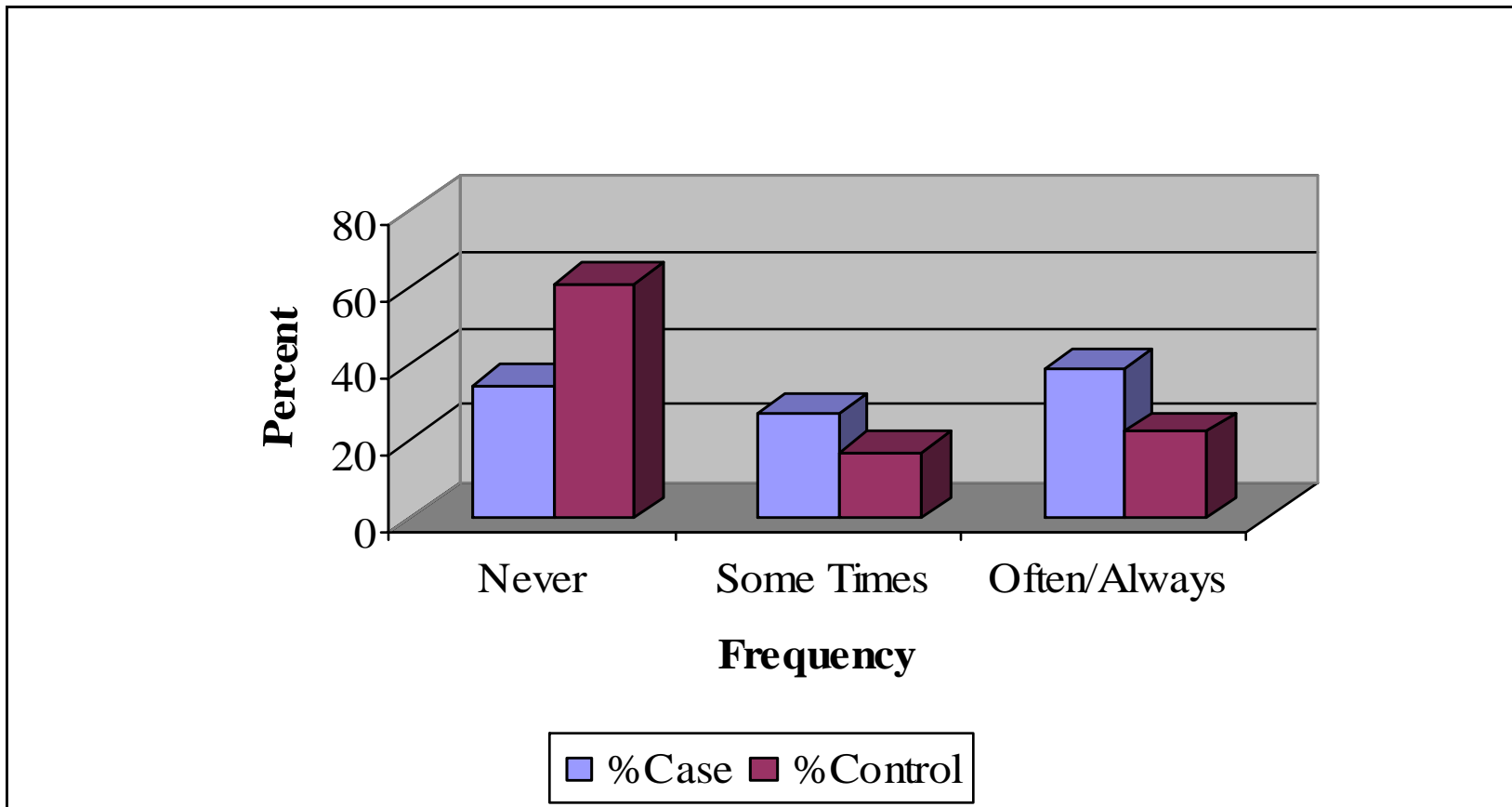
P=.75

**Fig-3 Fried Food Consumption Per Week**



P=.16

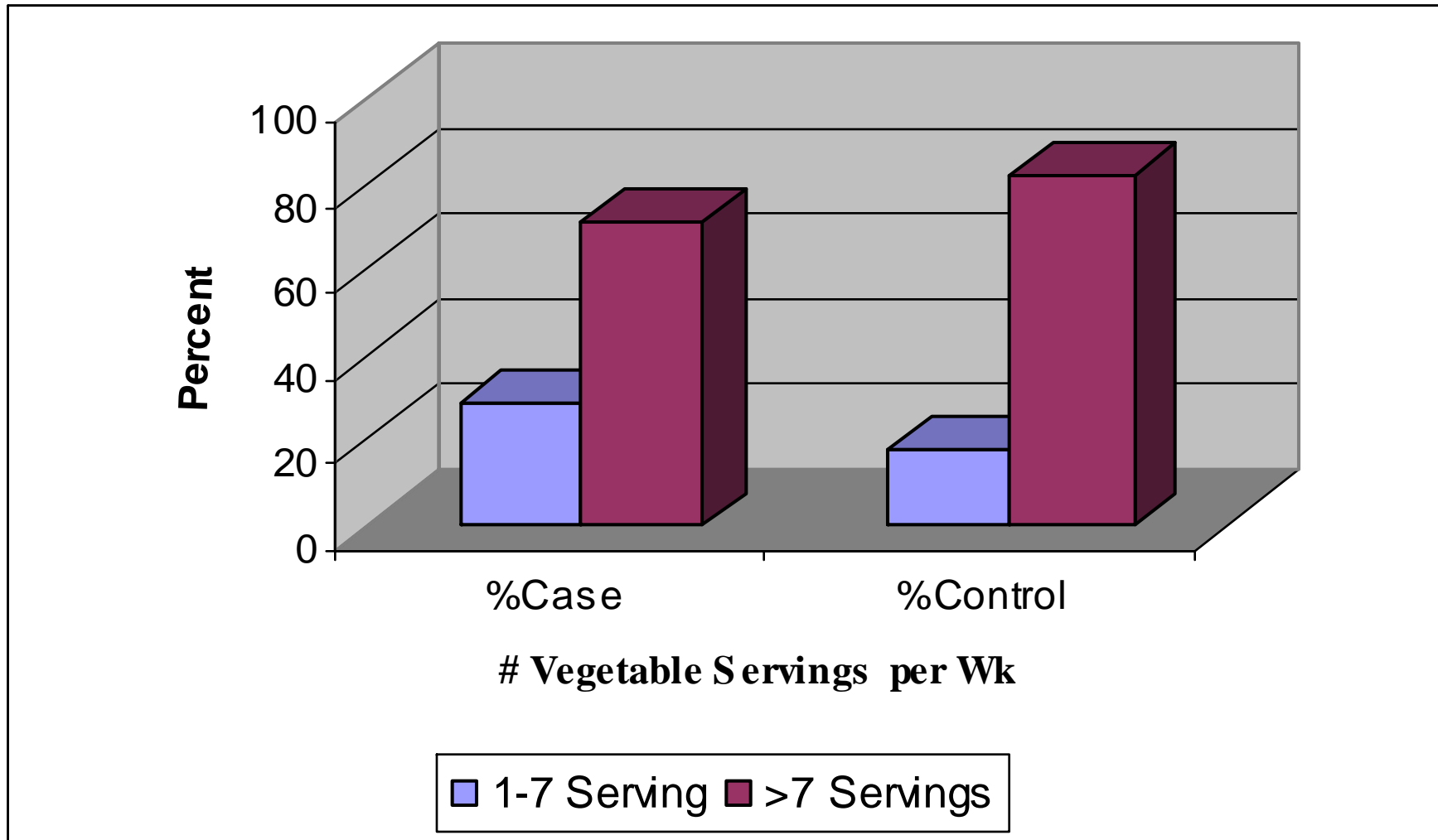
## Fig-4 Consumption of Chicken with Skin



P= .001

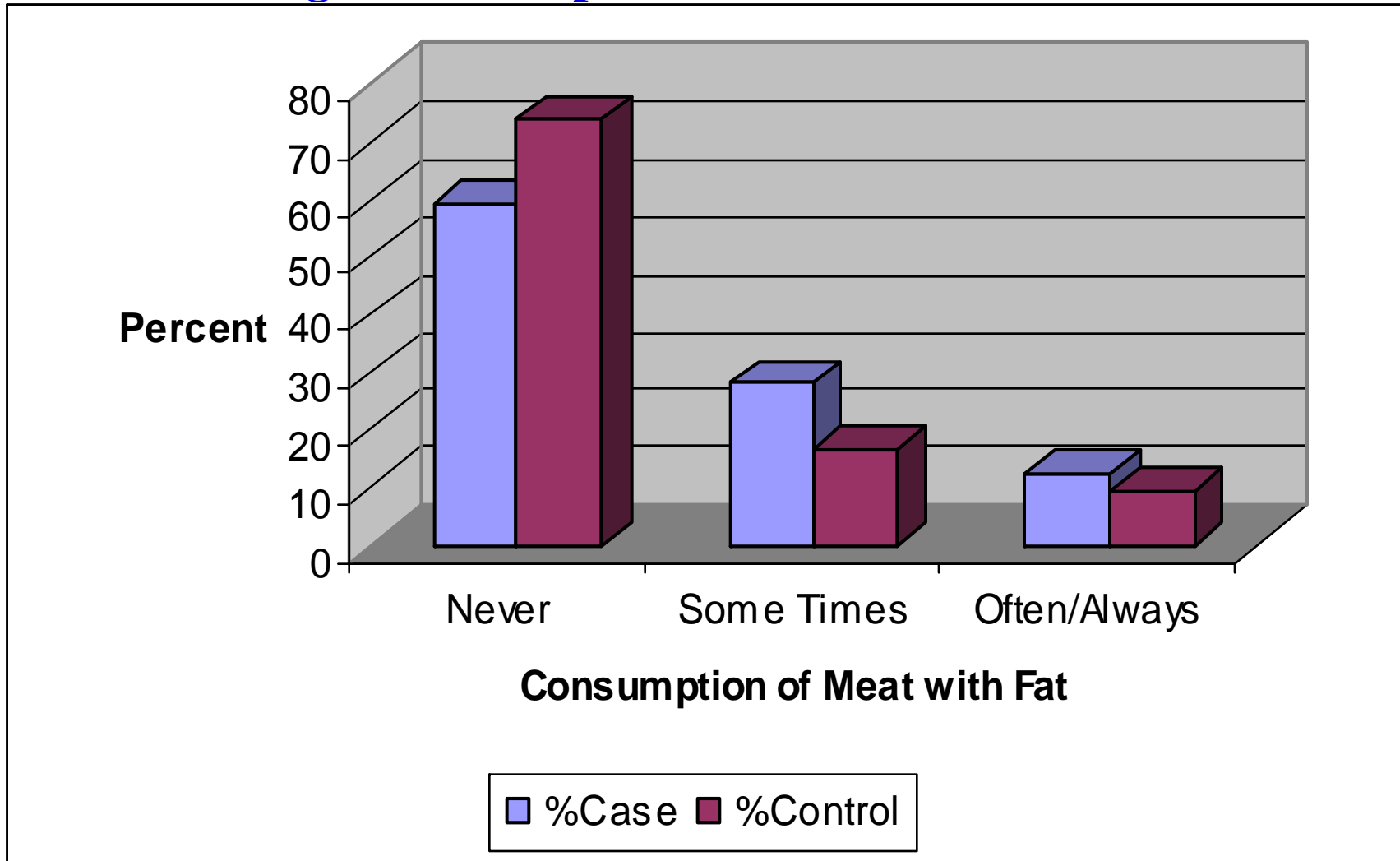


**Fig-5 Consumption of Vegetable Servings per Week**



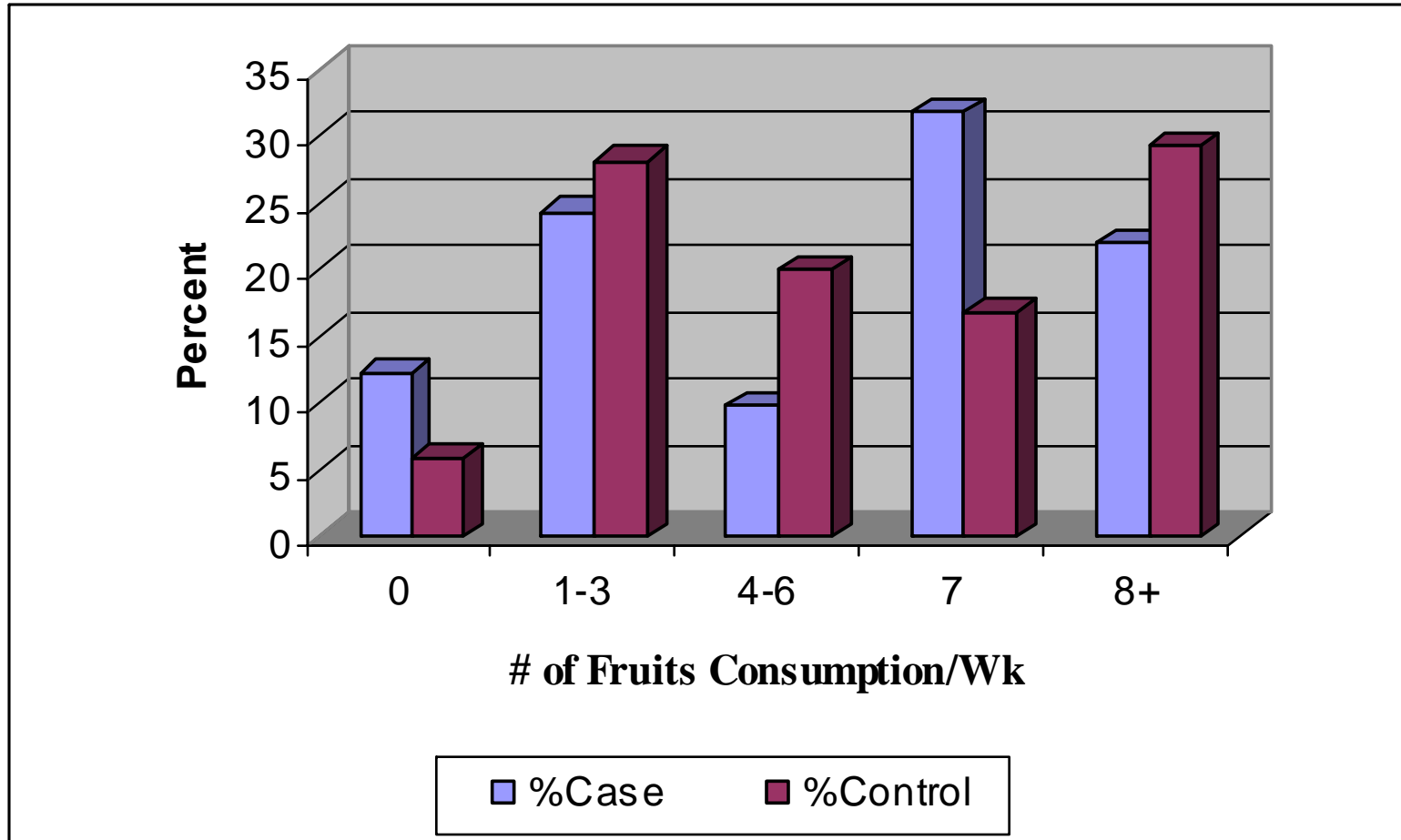
P=0.11

**Fig-6 Consumption of Meat with its Fat**



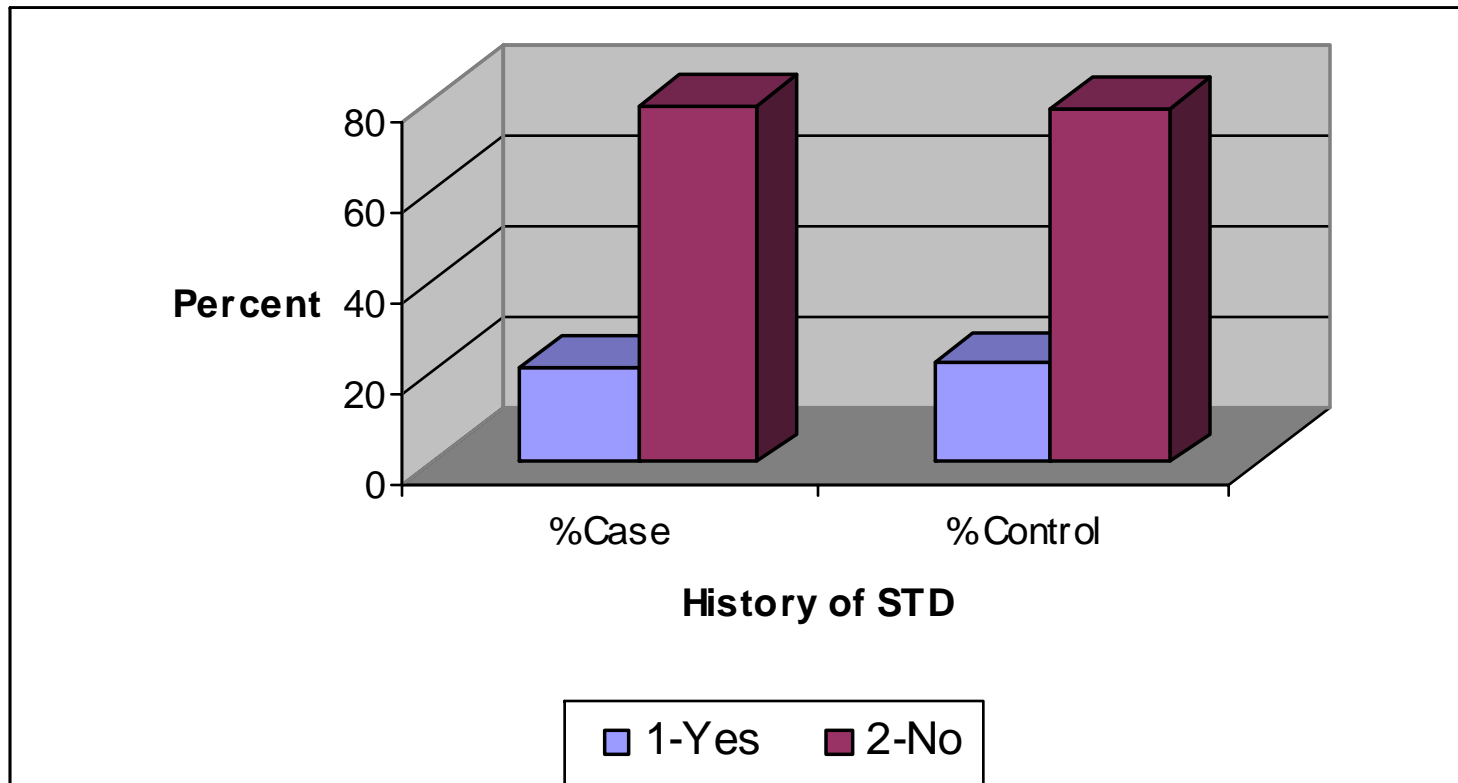
P= 0.12

**Fig-6 Number of Fruits Consumption/Wk**



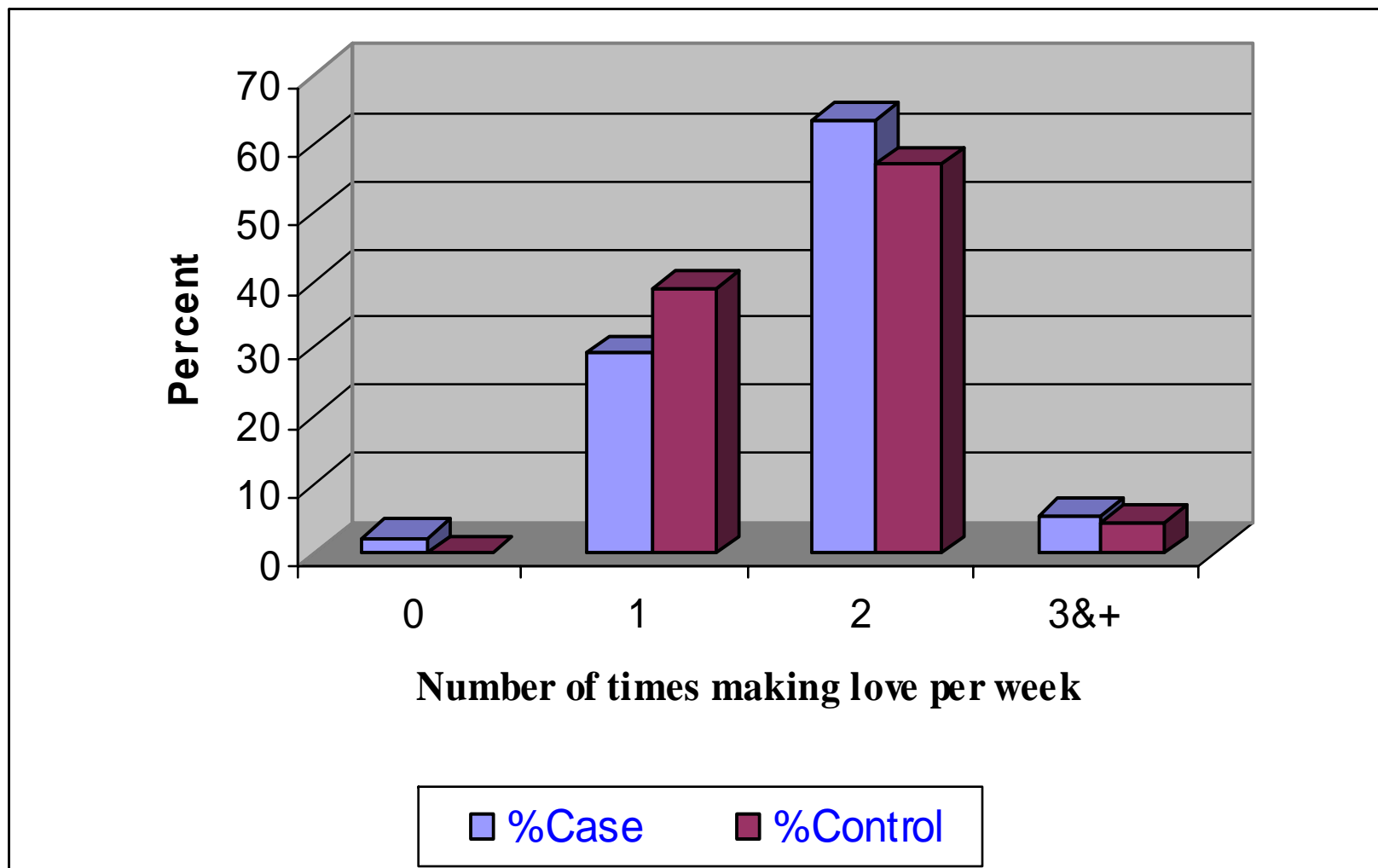
P= 0.19

## Fig-7 History of STD



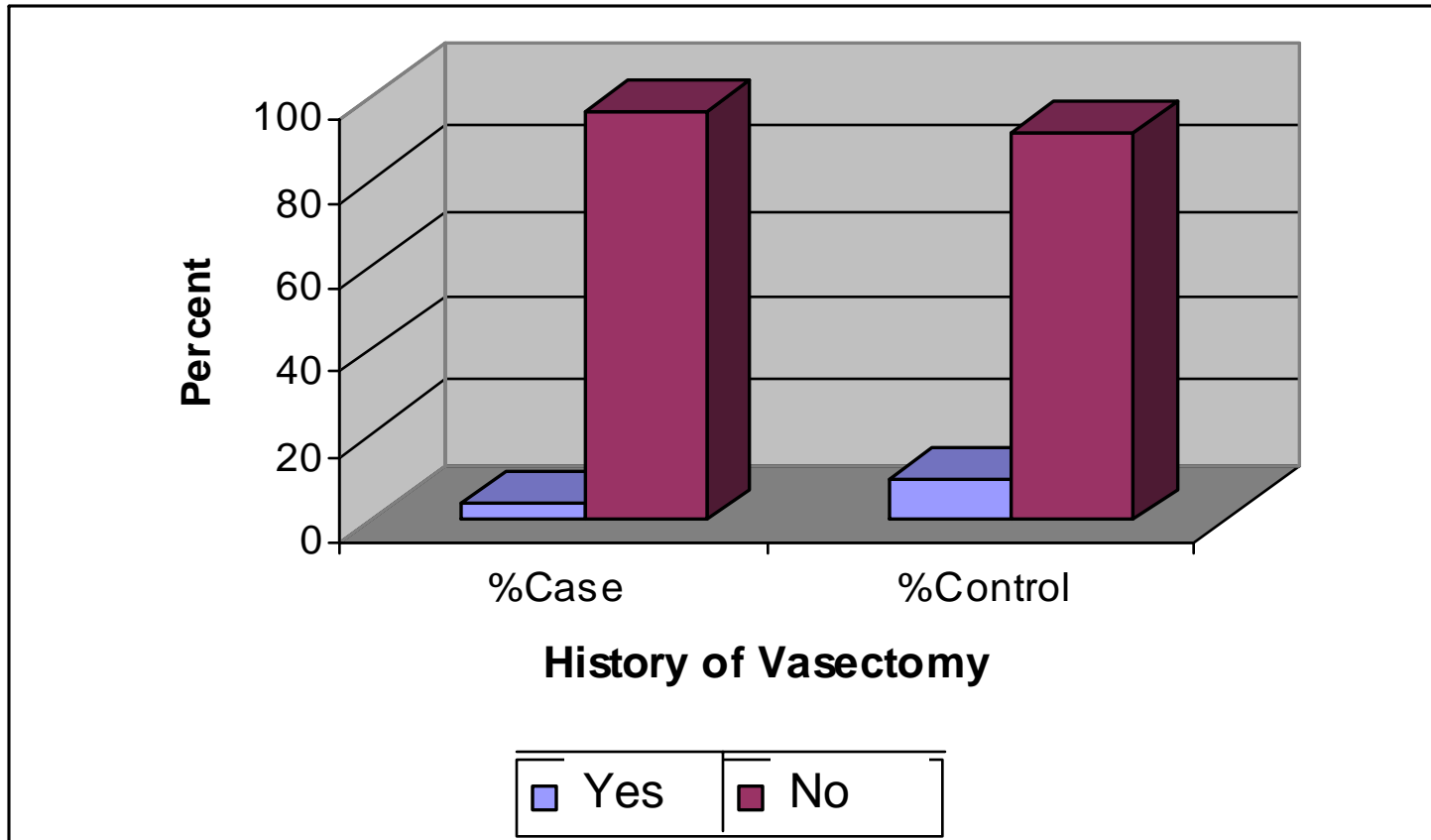
p= 0.95

**Fig-8 Number of times Making Love per Week**



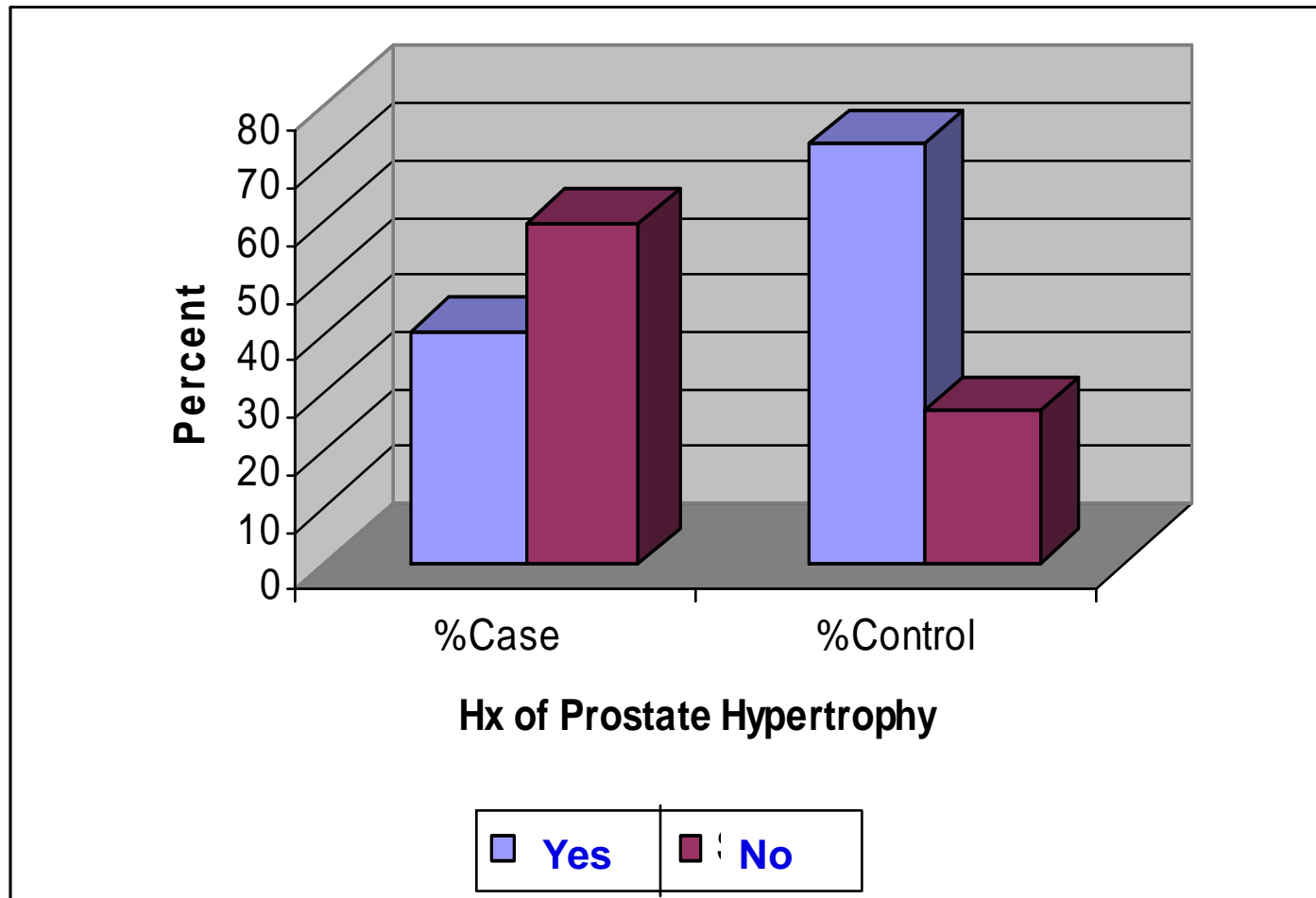
$p = 0.29$

## Fig-9 History of Vasectomy



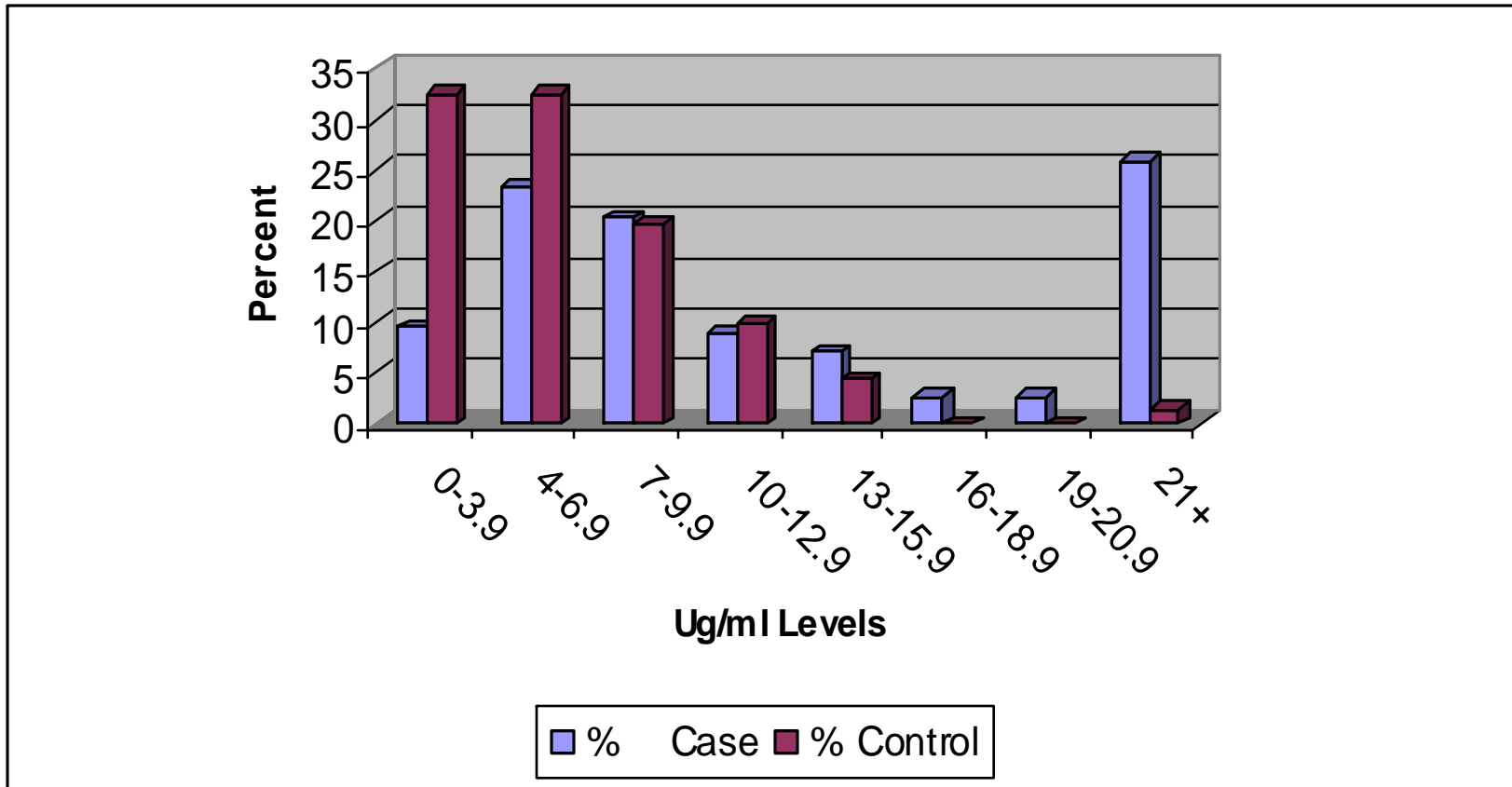
p =

# Fig-10 History of Prostate Hypertrophy



OR= .25

# Fig 11 Comparing Case-Control Groups by PSA Levels





# Conclusions

1. This study accept the hypothesis partially in that there was statistically significant association between prostate cancer and consumption of some high fat diet (e.g. chicken with skin) & also with smoking.
2. This study did not confirm the association of prostate cancer with sexual activity, history of STD, vasectomy and prostate hypertrophy.
3. There was not any significant protective effect of consumption of fruits, vegetables and vitamins for prostate cancer in this study.

## Conclusions (Cont'd)

4. Our study is different from most of other studies in that, our control group was pathological confirmed control men without any histological evidence of prostate cancer.
5. In our studies there were cases of prostate cancer with PSA less than 4 Ug/ml. There were controls without any pathological evidence of prostate cancer had higher PSA level than 4 Ug/ml cut point.