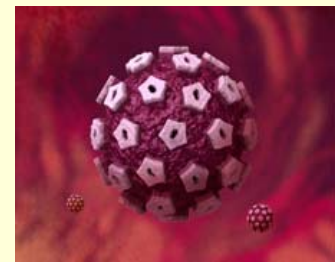
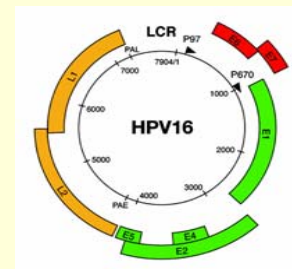
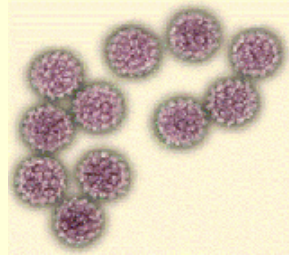
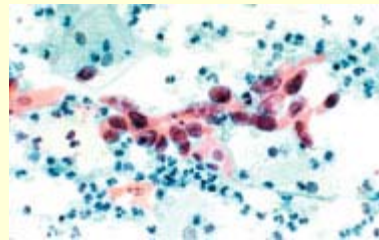
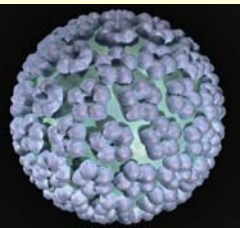


# Evaluation of Low Grade Cervical Dysplasia

Dr.J.Bentley

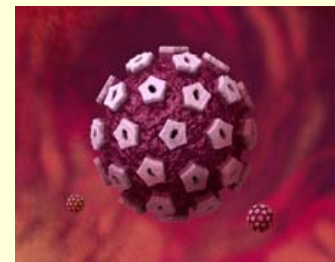
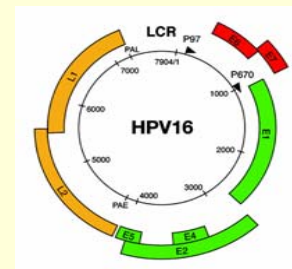
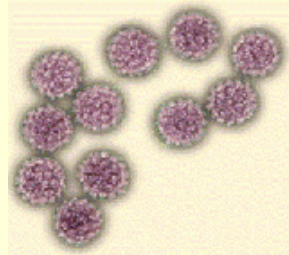
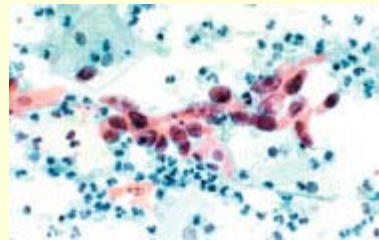
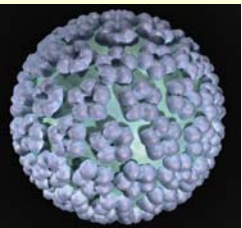
Dr.B.Al-Kudmani

September 21/ 2007



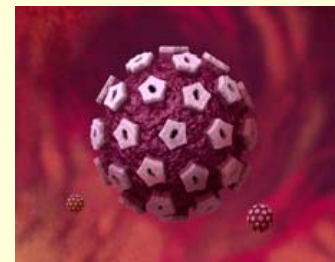
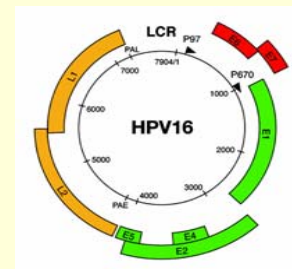
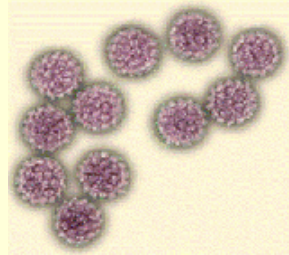
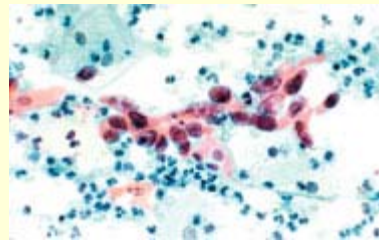
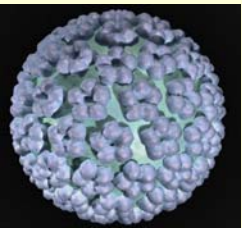
# Introduction

- Since the Papanicolaou smear was developed in 1941, rates of cervical cancer have decreased dramatically in countries with screening programs.
- The Bethesda System has been developed and subsequently revised to clarify terminology for reporting abnormal cervical cytology results.



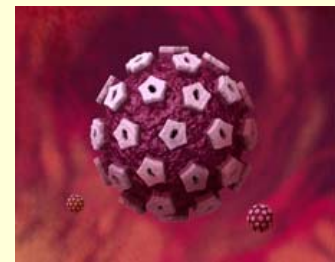
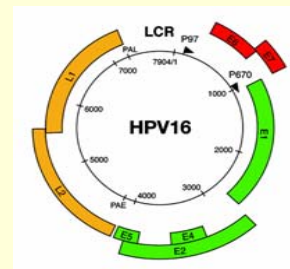
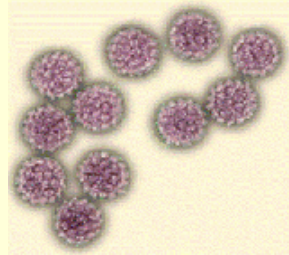
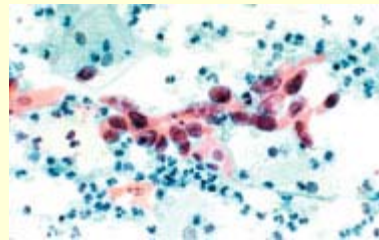
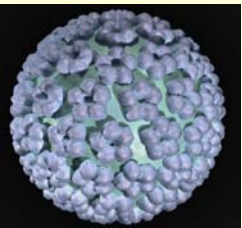
# Introduction

- A cytology result of 'Atypical Squamous Cells of Undetermined Significance' (*ASCUS*) accounts for 5% of all pap results, Low Grade Intraepithelial Lesion (*LSIL*) is the second most common abnormal cytology 2% and is more frequent in younger populations (25% after recent HPV infection) with larger numbers of recent partners



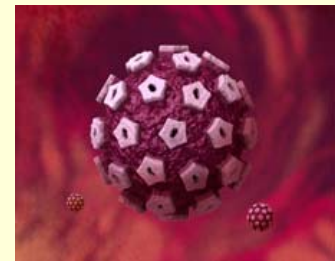
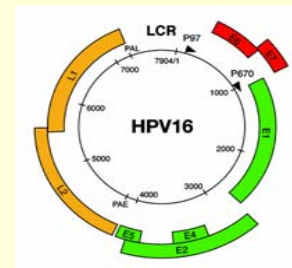
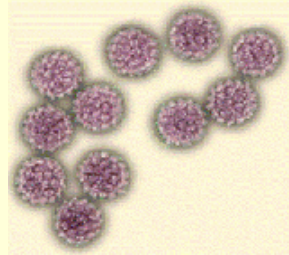
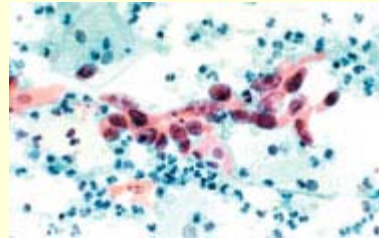
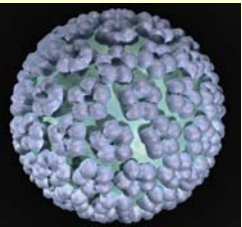
# Introduction

- **ASCUS Management options:**
  - 1) Immediate referral to colposcopy
  - 2) Triage based on HPV DNA testing (Hybrid Capture II or PCR)
  - 3) Conservative management with repeat cytology at 4 – 6 months intervals, with different thresholds for referral to colposcopy with subsequent abnormal cytology (ASCUS, LSIL or higher)



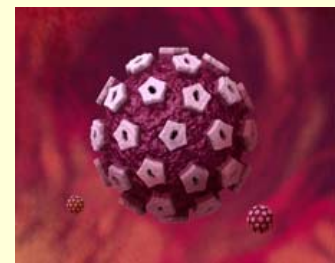
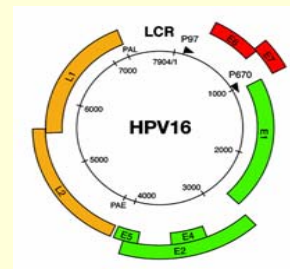
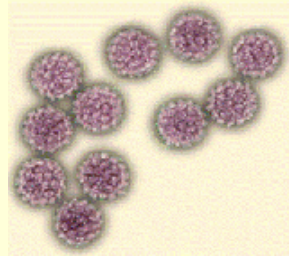
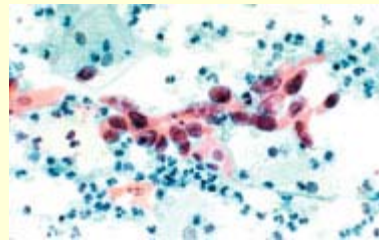
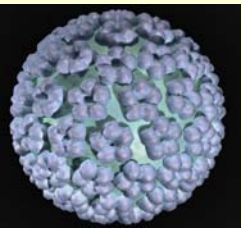
# Introduction

- **LSIL Management options:**
  - 1) Immediate Colposcopy
  - 2) Conservative management
  - 3) According to socio-economic status
  - 4) HPV triage



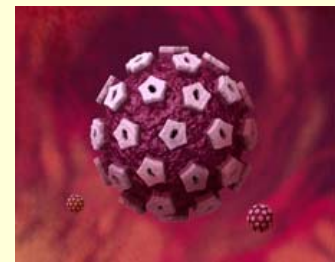
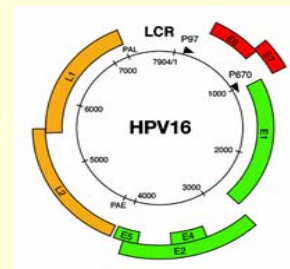
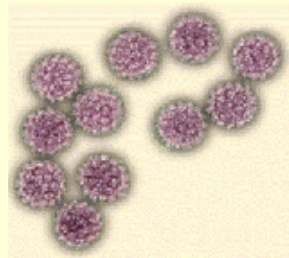
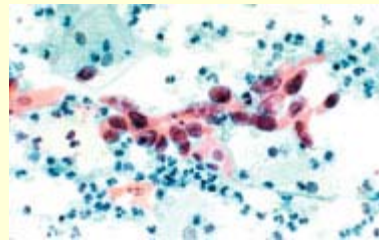
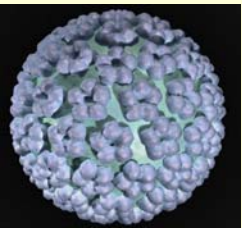
# Study

- A cohort study from a prospective trial (HPV E6/E7 Oncogene and Biomarkers Study)
- Data collected for patients enrolled between August 2006 – February 2007.
- HPV Hybrid capture II test.



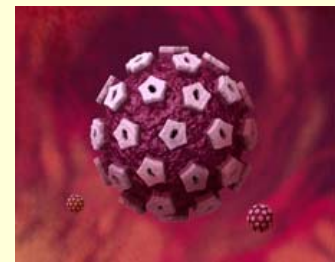
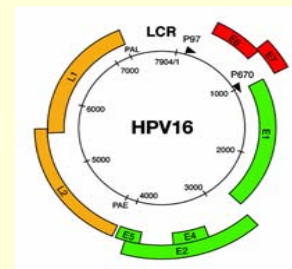
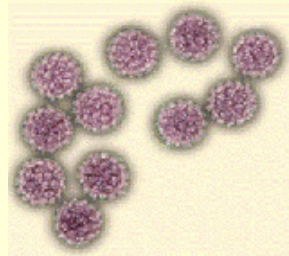
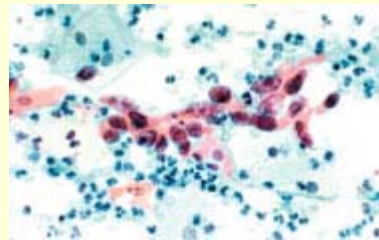
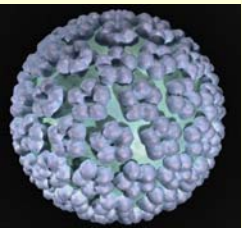
# Study

- ***Inclusion criteria:***
  - Age >18 yrs
  - Abnormal pap smear (2 abnormal low grade cervical cytology)
  - Referred to colposcopy
  - No previous cervical treatment



# Study

- ***Exclusion criteria:***
- Can not obtain informed consent
- High grade cervical cytology on pap smear
- Only one result of low grade cervical cytology
- Previous cervical treatment



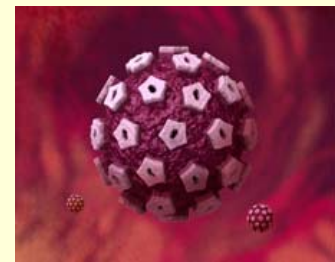
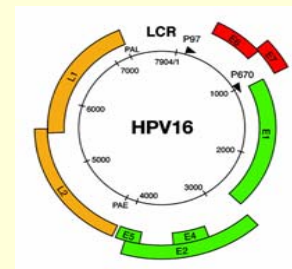
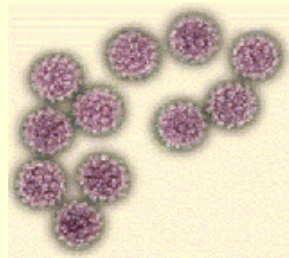
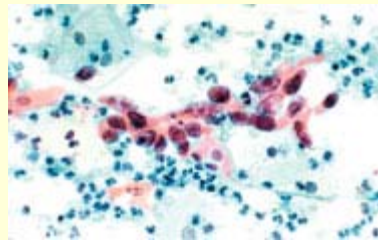
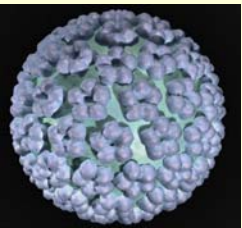
# Study

- Total 121 cases:
  - 11 samples insufficient for HPV analysis
  - 6 cases no history pap

Total 104 cases:

HPV +ve 80: 77%

HPV -ve 24: 23%

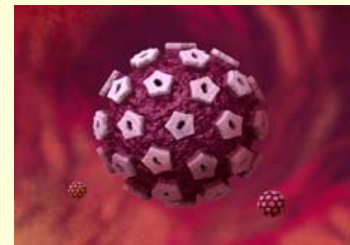
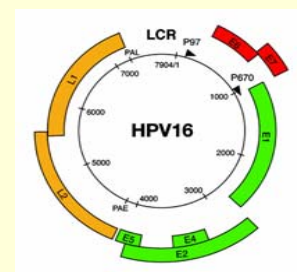
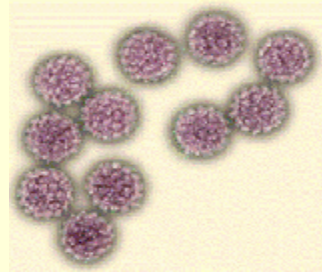
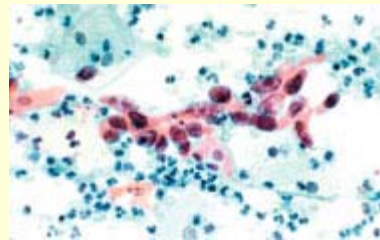
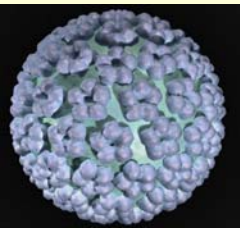


# Enrollment Pap

History  
Pap

|      |     |      |
|------|-----|------|
|      | ASC | LSIL |
| ASC  | 61  | 22   |
| LSIL | 18  | 14   |

Total: 115



# Study

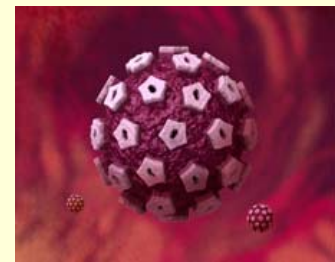
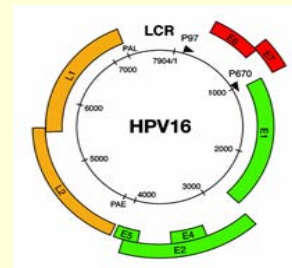
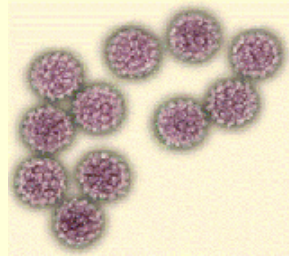
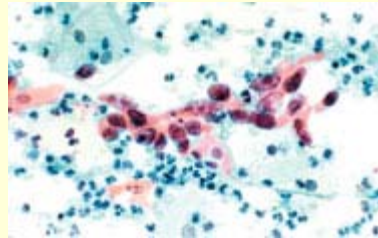
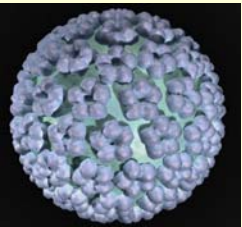
- ASC or LSIL + ASC or LSIL:

HPV + CIN1= 21 + 18= 39 (34%)

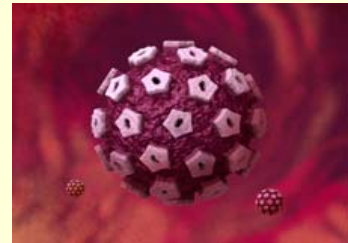
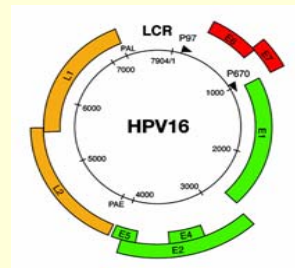
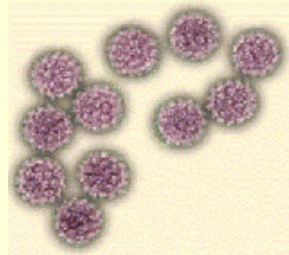
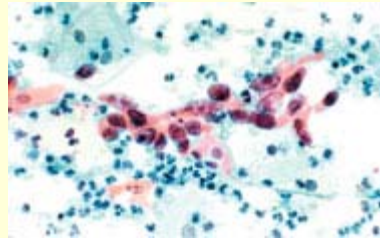
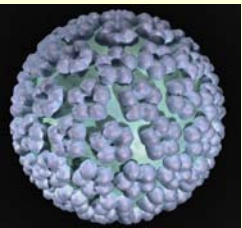
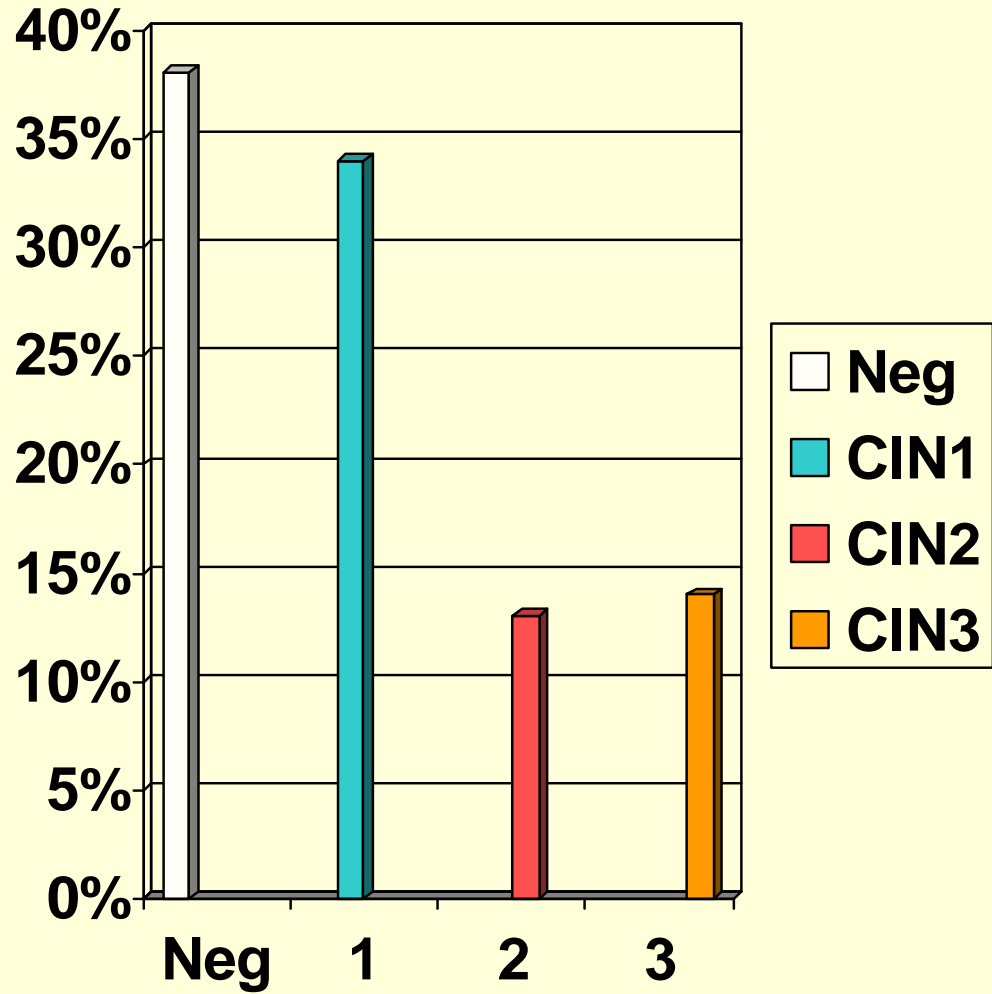
CIN2= 15 (13%)

CIN3= 16 (14%)

No Biopsy + Neg= 10 + 34= 44 (38%)



Total  
115  
cases

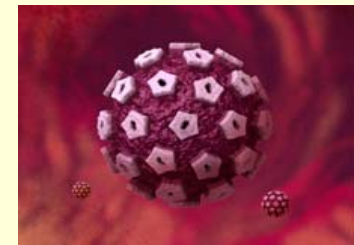
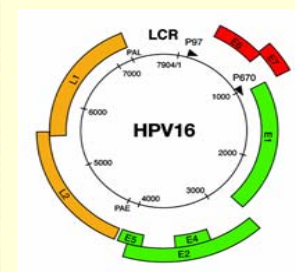
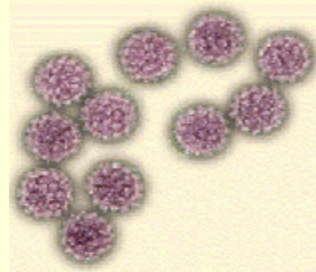
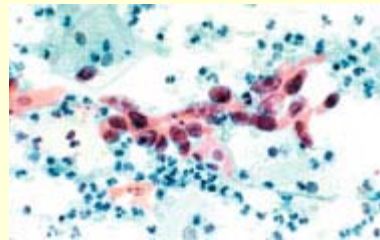
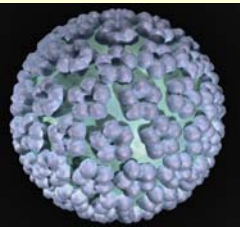


# Enrollment Pap

History  
Pap

|                        |      |      |
|------------------------|------|------|
| Negative%<br>Histology | ASC  | LSIL |
| ASC                    | 41   | 40.9 |
| LSIL                   | 33.3 | 28.6 |

Total: 115

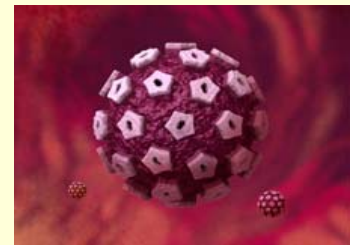
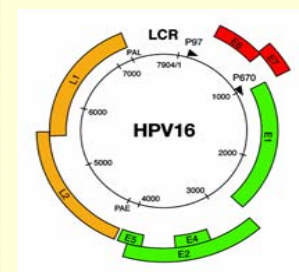
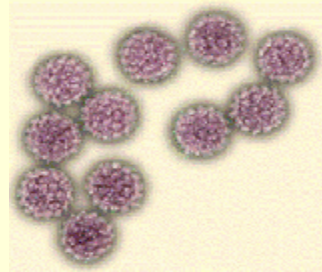
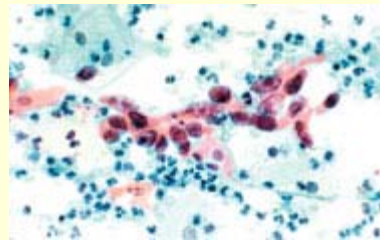
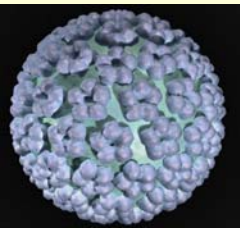


# Enrollment Pap

History  
Pap

|                     |      |      |
|---------------------|------|------|
| CIN1 %<br>Histology | ASC  | LSIL |
| ASC                 | 29.5 | 36.4 |
| LSIL                | 44.4 | 35.7 |

Total: 115

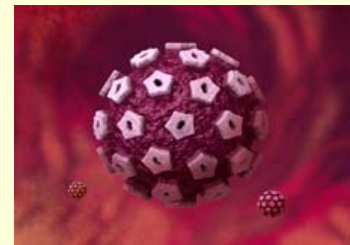
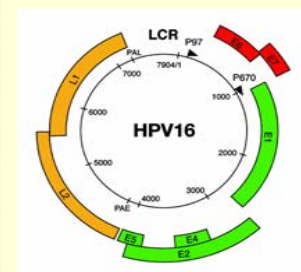
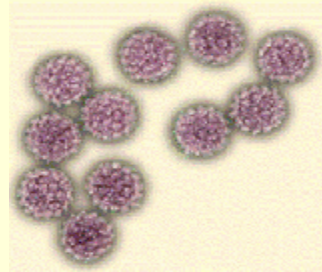
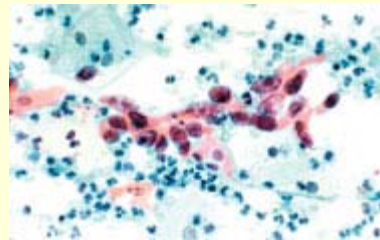
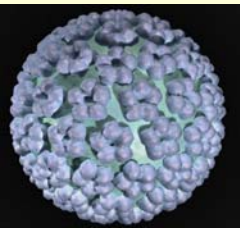


# Enrollment Pap

History  
Pap

|                     |      |      |
|---------------------|------|------|
| CIN2 %<br>Histology | ASC  | LSIL |
| ASC                 | 13.1 | 13.6 |
| LSIL                | 5.6  | 28.6 |

Total: 115

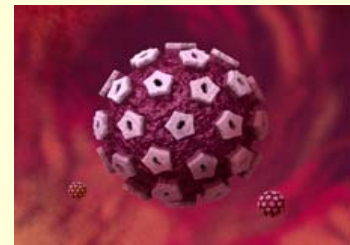
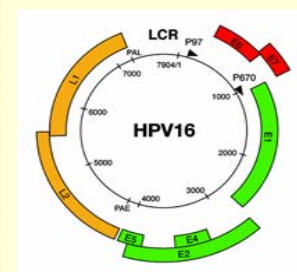
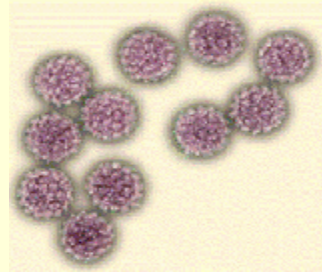
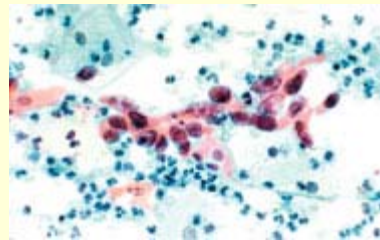
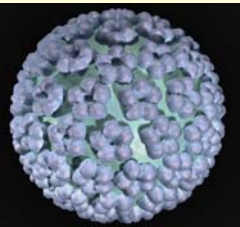


# Enrollment Pap

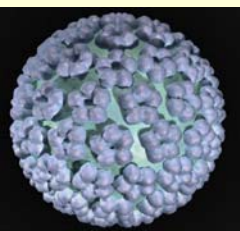
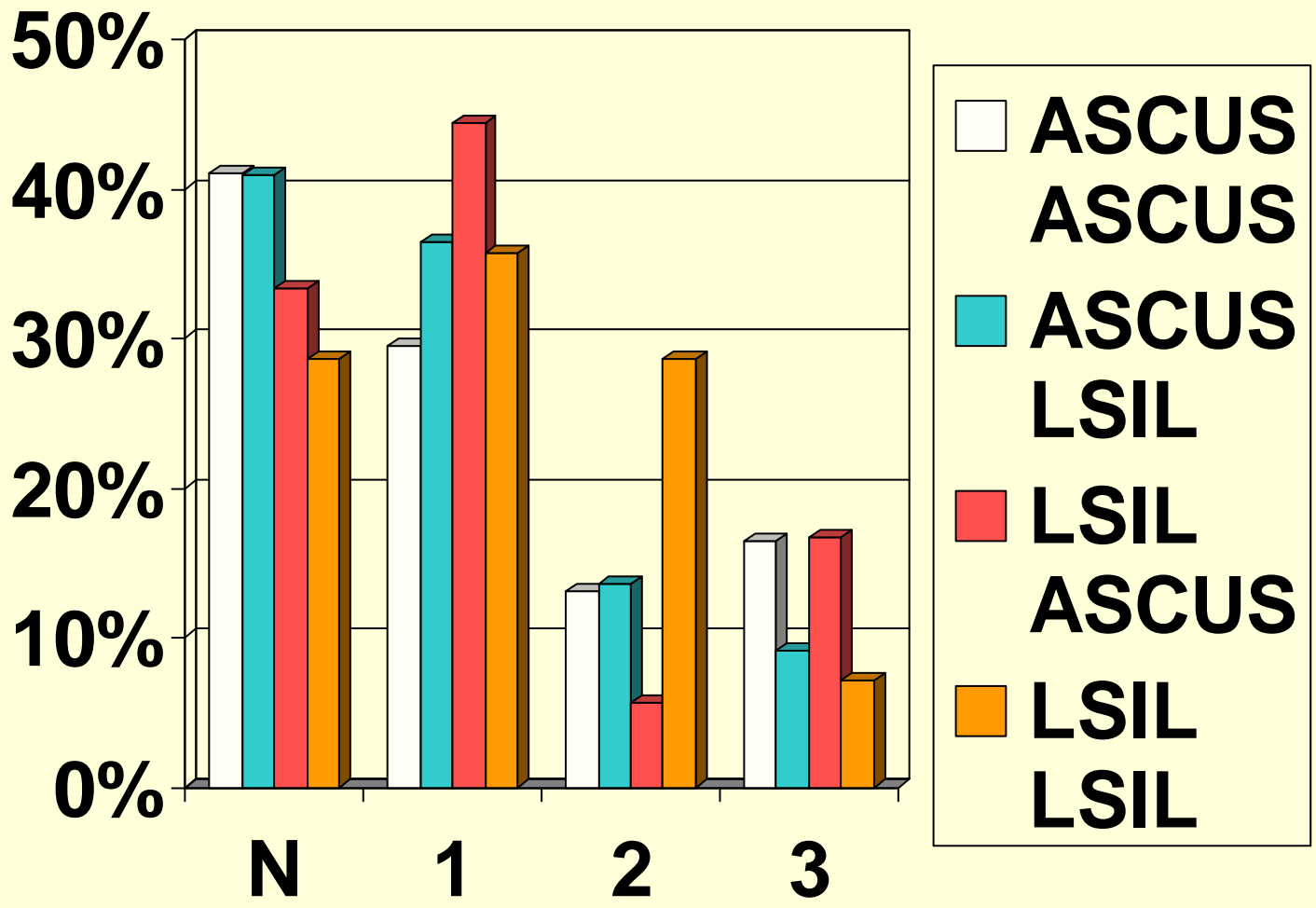
History  
Pap

|                     |      |      |
|---------------------|------|------|
| CIN3 %<br>Histology | ASC  | LSIL |
| ASC                 | 16.4 | 9.1  |
| LSIL                | 16.7 | 7.1  |

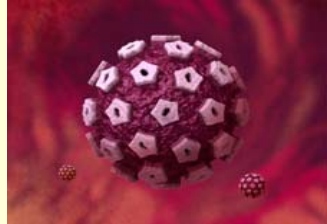
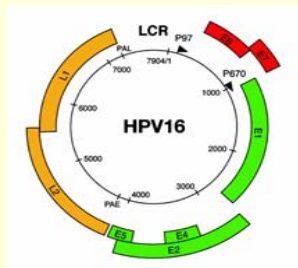
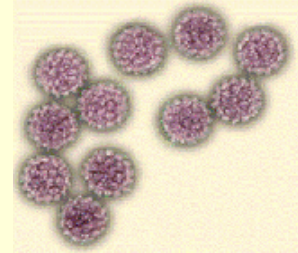
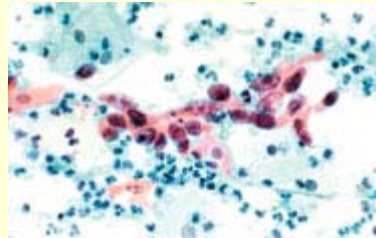
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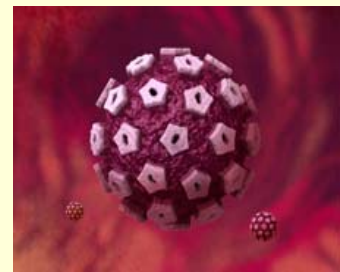
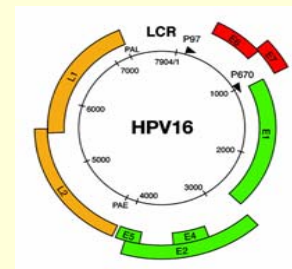
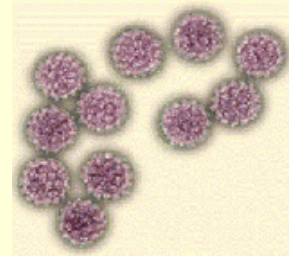
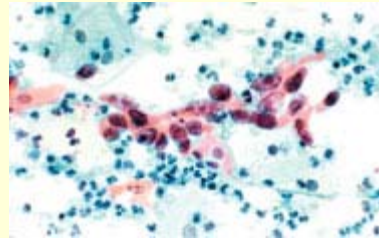
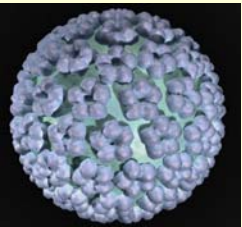
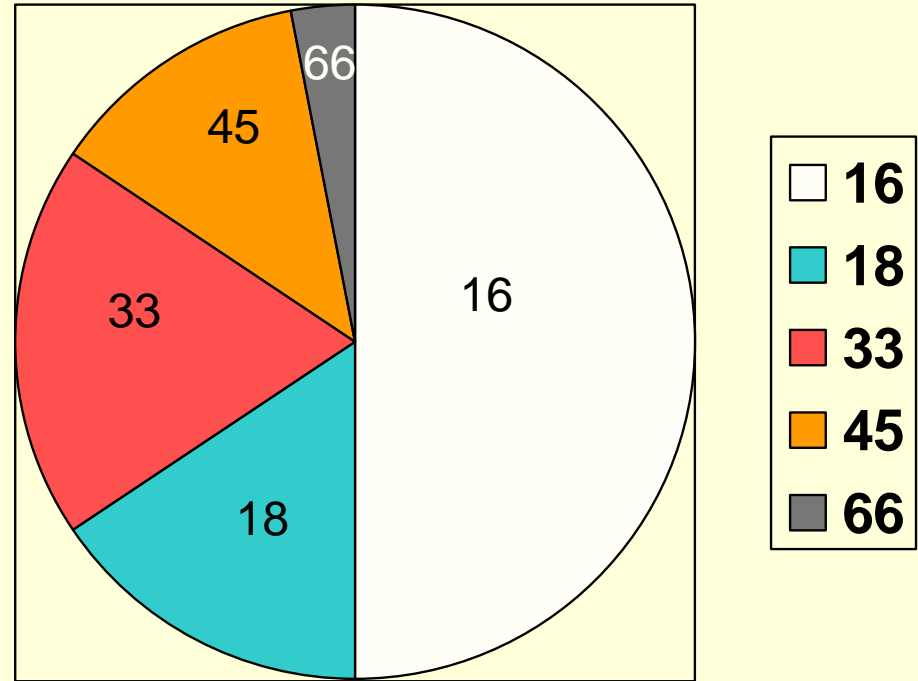
Dysplasia  
sequence  
Vs  
Histology



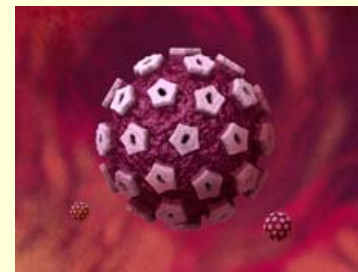
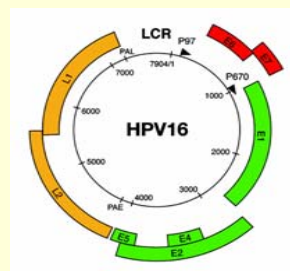
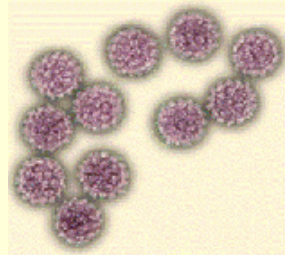
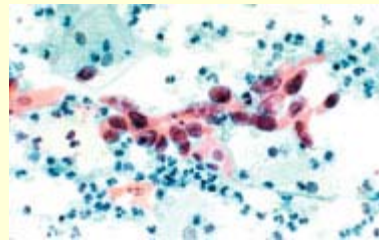
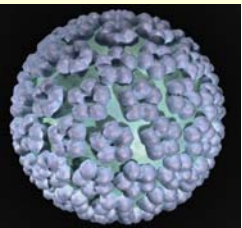
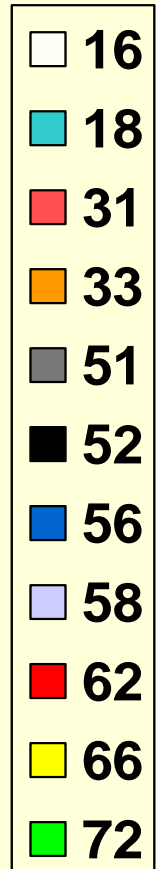
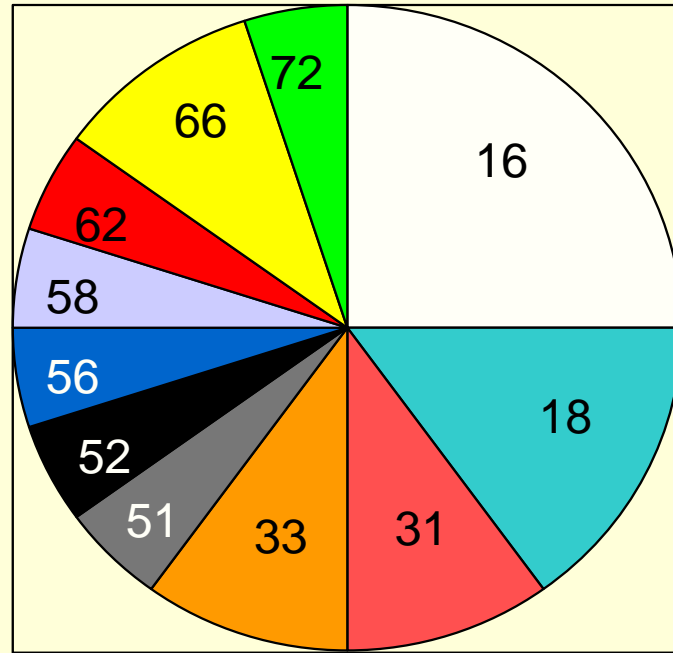
SPREAD  
THE WORD...  
NOT THE  
DISEASE



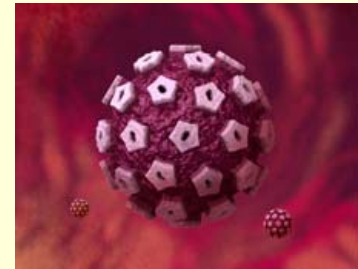
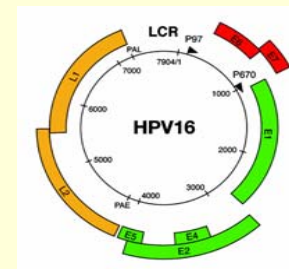
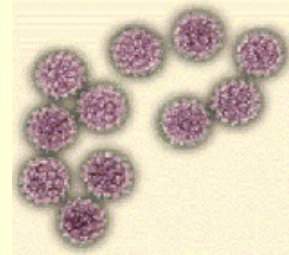
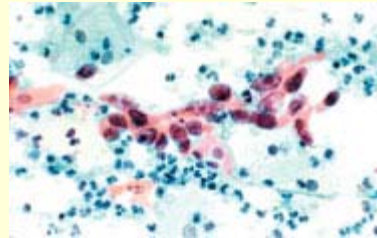
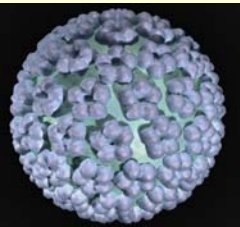
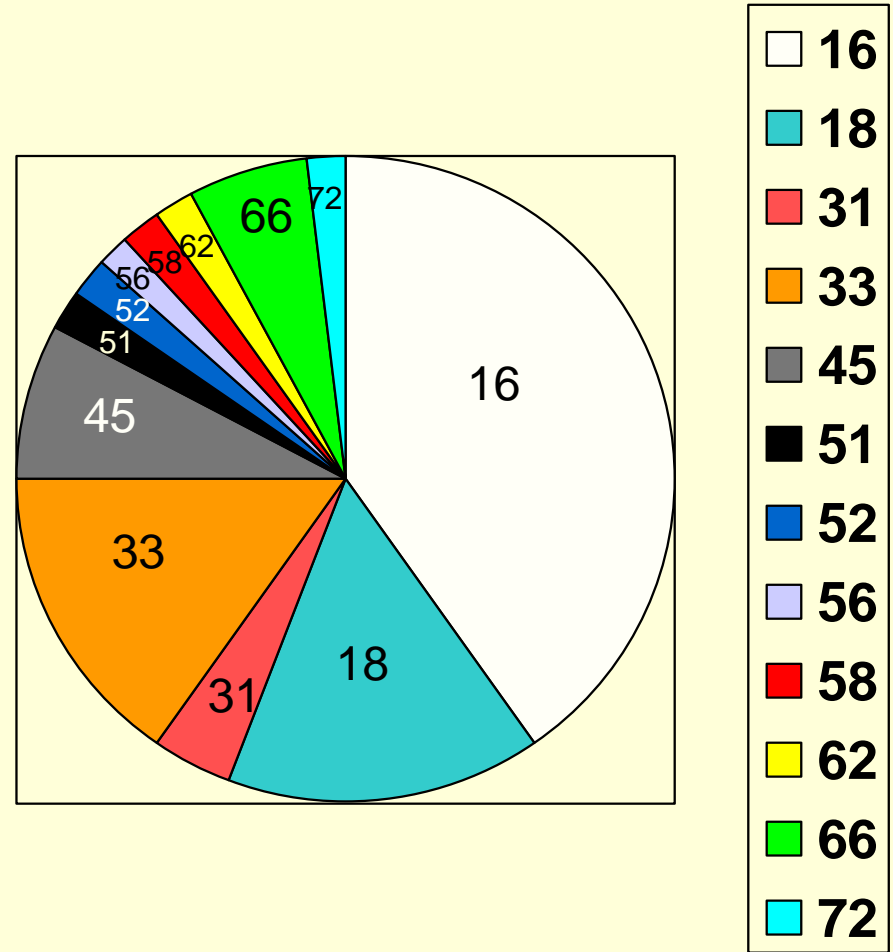
- Distribution of HPV types in single infection (32 cases)



- Distribution of HPV types in multiple infection (9 cases)

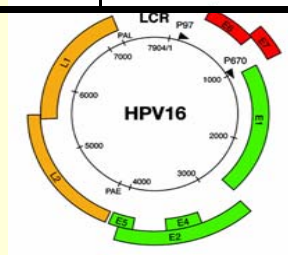
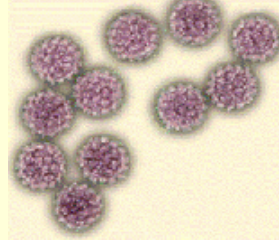
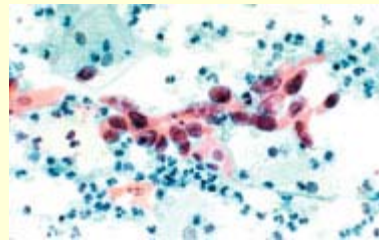
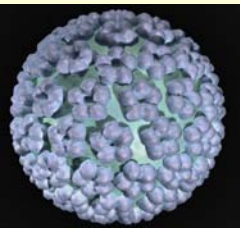


- Distribution of HPV types in single and multiple infection (41 cases)



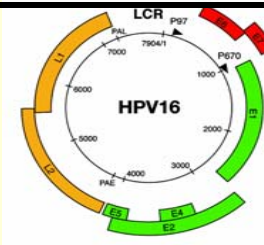
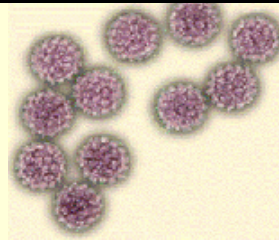
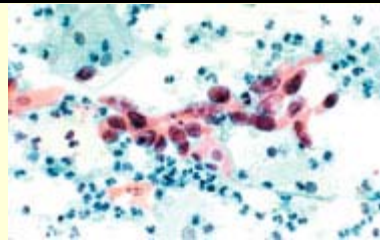
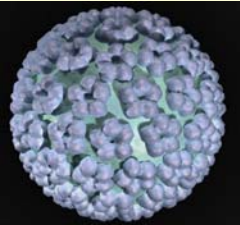
# ASC ASC Vs Not

|                        | Relative Risk | P value | Overall Rate |
|------------------------|---------------|---------|--------------|
| +ve HPV HC             | 0.81          | 0.045   | 77%          |
| CIN2 or 3              | 1.23          | 0.51    | 27%          |
| CIN3                   | 1.48          | 0.42    | 13.9%        |
| Hormonal contraception | 0.9           | 0.54    | 51.8%        |
| Smoking                | 1.12          | 0.69    | 33.3%        |
| Parity(multip)         | 0.83          | 0.45    | 37.5%        |



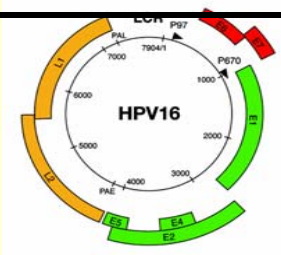
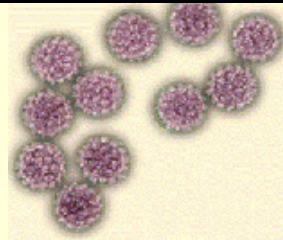
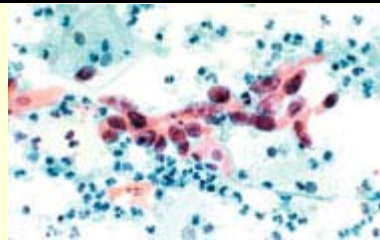
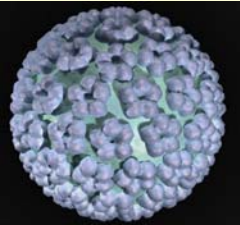
# CIN2 or CIN3

|           | Incidence | Confidence Interval |
|-----------|-----------|---------------------|
| ASC ASC   | 29.5%     | 18.5 - 42.5         |
| ASC LSIL  | 22.7%     | 7.8 - 45.4          |
| LSIL ASC  | 22.2%     | 6.4 - 47.6          |
| LSIL LSIL | 28.6%     | 8.4 - 58.1          |
| Total     | 27%       | 19.1 - 36           |



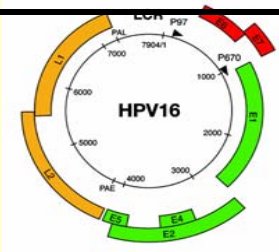
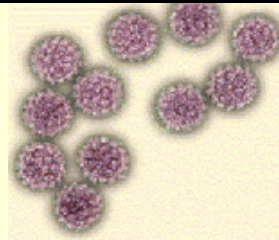
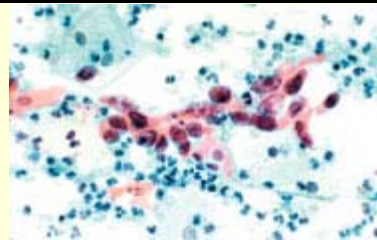
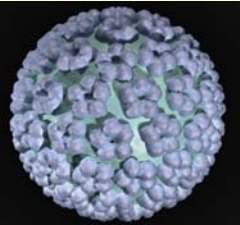
# CIN3

|           | Incidence | Confidence Interval |
|-----------|-----------|---------------------|
| ASC ASC   | 16.4%     | 8.2 – 28            |
| ASC LSIL  | 9.1%      | 1.1 – 29.2          |
| LSIL ASC  | 16.7%     | 3.6 – 41.4          |
| LSIL LSIL | 7.1%      | 0.18 – 33.9         |
| Total     | 13.9%     | 8.2 – 21.6          |



# Positive HPV

|           | Incidence | Confidence Interval |
|-----------|-----------|---------------------|
| ASC ASC   | 69%       | 55 – 81             |
| ASC LSIL  | 79%       | 54 – 94             |
| LSIL ASC  | 94%       | 73 – 100            |
| LSIL LSIL | 83%       | 52 – 98             |
| Total     | 77%       | 68 – 85             |



# Discussion

- In ALTS study:

ASCUS part:

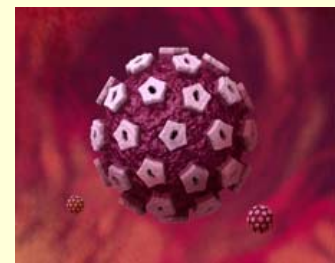
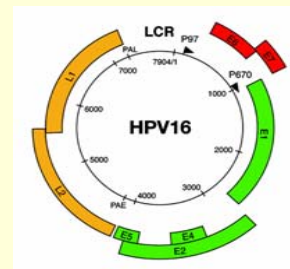
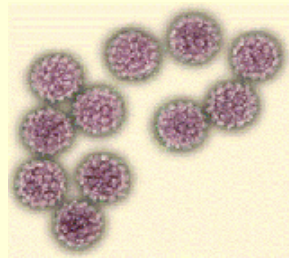
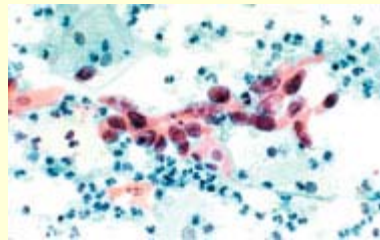
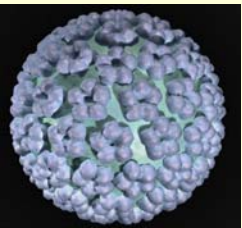
HPV +ve 50.6% RR 0.77, P 0.005

CIN2 or 3 15.3% RR 0.62, P 0.01

LSIL part:

HPV +ve 85.3% RR 1.06 P 0.56

CIN2 or 3 28.5% RR 1.17 P 0.39

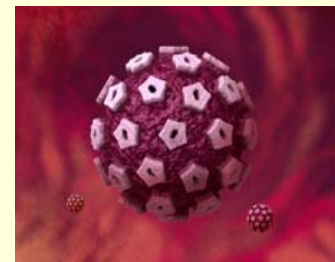
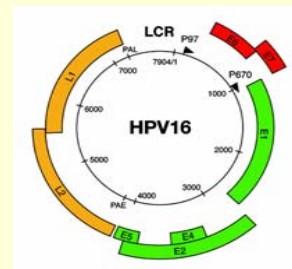
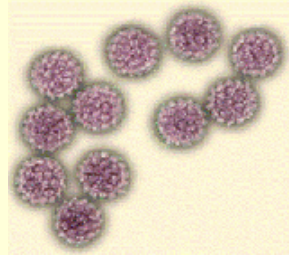
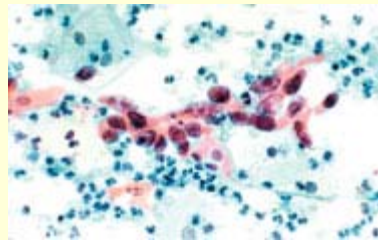
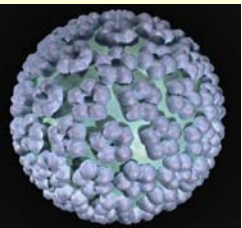


# Discussion

- In ALTS study:

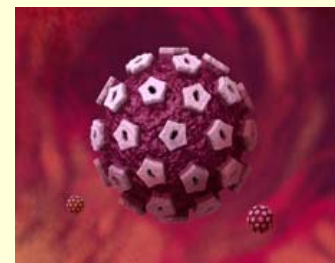
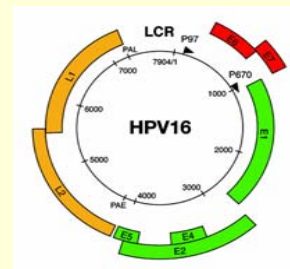
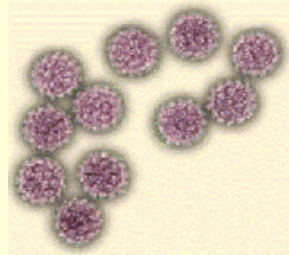
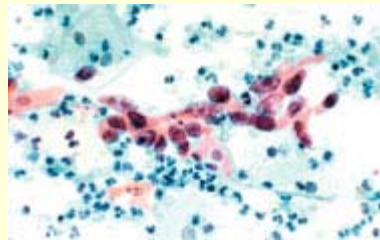
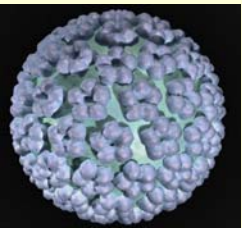
ASCUS part + LSIL part:

CIN2 or 3    21.1%    RR 0.82    P 0.24



# Conclusion

- A cohort from our population showing:
  - By having 2 abnormal low-grade cervical cytology:
    - HPV prevalence 77%.
    - Histological outcome with High grade cervical dysplasia 27%.
    - Rate of certain factors (i.e. parity, use of hormonal contraception and smoking).
    - HPV types distribution.



Thank you

