

# 17<sup>th</sup> International Conference on Pathology & Cancer Epidemiology

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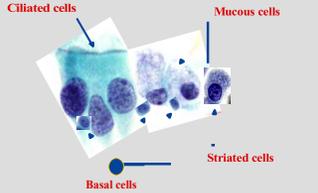

**Servizio di Anatomia Patologica**  
**Sezione di Citopatologia Diagnostica**  
*Responsabile Dott. Sergio Fiaccento*

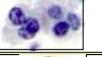
**MICHELA GOZZI CORDONI ROSANGELA**

## NASAL CYTOLOGY: OUR EXPERIENCE

With nasal cytology, an accurate study of the pseudostratified epithelium of nasal mucosa is possible. The aforementioned study recognizes the presence and the different distribution of cellularity, to be proposed in a rhinocytogram in view of a correct evaluation of the inflammatory state of the nasal mucosa.

**Epithelial cellularity present in the nasal mucosa**



Ciliated cells	
Mucous cells	
Basal cells	
Striated cells	
Neutrophils granulocytes	
Eosinophils granulocytes	
Mastocytes	

**RHINOCYTOGRAM:**

Ciliates cylindrical cells : ----  
 Muciparous globet cells : ----  
 Striated cells : .....  
 Basal cells : .....  
 Neutrophils granulocytes : .....  
 Eosinophils granulocytes : .....  
 Mastocytes : .....  
 Comment: .....

Same explanatory examples

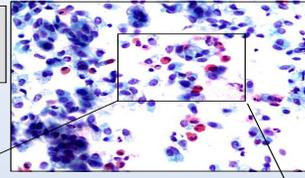
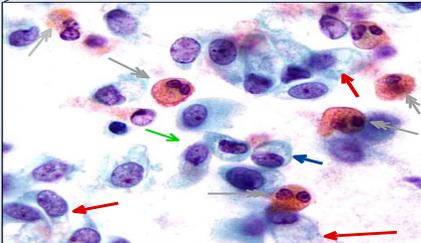
Sampling and preparation methods

Clinical framework of the problem

## Nasal cytology : C 770/18

**Clinical news:**  
 Pale rhinopathy (vasomotor component) with upper left ciliarial deflection and tendency to substenosis of the meatal area of this side, in a woman aged 44, previously operated of septoplastic and with nasal pyramid deviate from previous trauma.

Muciparous cells →  
 Ciliated cells →  
 Basal cells →  
 Striated cells →  
 Granulocytes eosinophil →  
 Granulocytes neutrophil →

**RHINOCYTOGRAM:**

1 Ciliates cylindrical cells : ++  
 1 Muciparous globet cells : +++  
 1 Striated cells : ++  
 1 Basal cells : ++  
 1 Neutrophils granulocytes : +  
 1 Eosinophils granulocytes : ++  
 1 Mastocytes : 0

**Comment:** in the absence of significant inflammation and in the presence of numerous eosinophils, the increase of muciparous globet cells, is such as to suggest a picture of mucous metaplasia.

## Methods of sampling and preparation of smears

The sampling methods used by various author are different. What we use is simple and consists of scraping carried out at the level of the nasal mucosa, bilaterally, at the inferiore turbinate.

## Material used :

In a first sampling with cytobrush, 3 glasses with traditional smears are prepared for coloring according to MGG. In a subsequent sampling the brush is immersed in preservative liquid for subsequent enrichment in the liquid phase, in order to obtain at least 2 glasses for coloring with E.E and Papanicolaou. The liquid phase method is particularly useful for obtaining abundant cellularity arranged in a single layer.



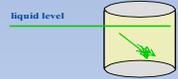
## Glass preparation :

- 1 traditional glass preparation for smears (MGG, Papanicolaou, E.E.)
- 1 in liquid phase (Papanicolaou, E.E.)

The liquid phase procedures provide for an enrichment of the material using : ( filter system or centrifugation

by filters  
Thin Prep (TP)  
SurePath

by cyto-centrifugation  
Cytofast  
Papspin



Papipil

Cytopil

A New, Liquid-Based Cytology Technique  
 Birgit Weynand, Martine Berlière and All.  
 Acta Cytol 2003;47:149-153

method used by us

## Clinical classification of the problem

The classification of the rhinitis does not currently appear to be univocal and well defined and there are many advanced proposals. However nasal cytology represents a valid means of differential diagnosis between the various pathological situations suggested below and specially plays a fundamental role in the recognition and study of non-allergic non-IgE related vasomotor rhinopathy.

- A- Allergic rhinitis from hyper non specific nasal reactivity
- B- Non allergic idiopathic-vasomotor rhinitis
- C- Infectious-viral and bacterial
- Other - iatrogenic, hormonal and from mechanical causes .

Vasomotor rhinitis

- allergic or specific
- non allergic aspecific
- hormonal iatrogenic
- olinergetic, neurodistonic
- occupational
- with cellularity : N.A-R.NE  
N.A-R.ES  
N.A-R.MA,  
N.A-R.ESMA

## Classification of rhinitis:

- I- infectious
- II- allergic
- III- non allergic
- IV- other causes

## New nosological entities:

- Chronic non-allergic mediated cell not IG-E
- N.A.R.NE: chronic non allergic rhinitis **neutrophilic**
- N.A.R.ES : chronic non allergic rhinitis **eosinophilic**
- N.A.R.MA: chronic non allergic rhinitis **mastocytic**
- N.A.R.ESMA: chronic non allergic rhinitis **eosinophilic and mastocytic**

the rhinitis once classified as non specific are now placed in the *allergic vasomotor rhinitis* "