CLINICAL TYPES OF PANNUS

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INTRODUCTION

Pannus is one of the Clinical manifestations of corneal diseases. This work is to study the present status of the different clinical and aetiological types of corneal pannus.

- Pannus is presented by corneal neovascularization and cellular infiltration. The proportion between these two elements gives rise to the different forms whether thin (Tineous), vascular (Vasculosus) or fleshy (Carnosus).

- These pathological changes either affects a segment of the cornea as in phlyctenulosis or be annular as in trachoma.

- Pannus is progressive at first then it regresses either by treatment or spontaneously, leaving the cornea clear or with a scar (Siccus).

- The pannus is sometimes follicular as in trachoma described by Herbert as (Rosette) which heals by leaving (Pits).

Many diseases resulted in pannus formation such as:

1. **Chlamydial infection** with (Trachoma) which may attain any of the clinical forms mentioned above or (Inclusion Conjunctivitis) in which there is superior micropannus or (Lympho - Granuloma Venereum) with heavy vascular pannus.

2. **Viral infections** as (Molluscum Contagiosum) with superior vascular micropannus and (Herpes Simplex)
with unilateral pannus.

3- **Bacterial infection** by (Leprosy) with Pannus in upper outer quadrant, (Syphilis) retro- corneal pannus of Kruckmann and (Tuberculosis) with unilateral sectorial pannus.

4- **Parasitic infestation** by (Leishamaniasis) which produces **vascular pannus** and (Onchocerciasis) which is manifested by thin pannus.

5- **Superior Limbic Keratoconjunctivitis of Theodore (1970)** with Micropannus.

6- **Allergic conditions** as (Spring Catarrh= Vernal Blepharitis) with gelatinous annular pannus characterized by Tranta’s spots and (Phlyctenulosis) with thin superficial thin vascular and finally as scrofulous pannus.

7- **Dermatological diseases** as (Ocular Pemphigoid) with circumferential pannus, (Acne Rosacea), (Keratitis, Ichthyosis, Deafness KID syndrome) manifested by superficial annular pannus, (Lyell’s disease = Toxic Epidermal Necrolysis) and (Sieman’s disease = Keratosis Follicularis Spinulosa Decalvans) with circumferential pannus.

8- **Nutritional deficiencies** as (Ariboflavinosis B2) which produces annular vascular pannus and (Pellagra B7).

9- **Auto-Immune diseases** as (Sjogren’s disease) Keratoconjunctivitis Sicca.

10- **Degenerative conditions** as (Absolute Glaucoma) associated with hyaline degenerations.

11- **Endocrinal disturbances** as (Hypoparathyroidism) with superior vascular pannus.

12- **Trauma** with (Soft contact lens) after prolonged use manifested by upper superficial vascular pannus.

13- **Toxic drug reactions** as (Antivirals: IDU, Adenine Arabinoside),
(Antibiotics: neomycin, gentamycin, tetracycline, chloramphenicol), (Miotics: eserine, Pilocarpine), (Mydriatics: Atropine), (Preservatives: Benzalkonium, Thimerosal).

Subjects and Methods
All patients attending the ophthalmic out-patient clinic of Mansourah university hospital were examined and those who had pannus were selected and asked about past and present history and about previous treatment and any systemic diseases.

Those patients were examined by slit lamp using diffuse illumination, slit beam and cobalt blue filter after staining with fluorescein. Any associated pathology of the cornea was examined and photographed such as oedema, ulcers, cellular infiltration, neovascularization degenerations and scars.

Two masses were excised and examined pathologically.

DISCUSSION
* Trachomatous pannus is still the commonest clinical type despite the marked decrease of incidence of trachoma, the patients are mainly from rural areas with low hygienic condition in poor ignorant classes, the incidence is preponderant in females, the age incidence is from 6 months up to 2 years; the same as reported by Fahmy (1958).

The pannus was mainly bilateral (Sobhi 1958).

Scars were constant in cornea and upper tarsal conjunctiva.

The resultant corneal scar diminishes the vision by the opacity and the cicastral corneal astigmatism.

Many cases were associated with other corneal pathology such as: corneal ulcers, Keratectasia, hyaline degeneration and Salzmann's nodular degeneration.

Excision biopsy of 2 masses shows in one pseudoepitheliomatous hyperplasia and in the other epithelial plaque (Mortada 1962). Always
pannus was associated with upper tar-
sal conjunctival follicles and/ or papil-
lae and scar. Some cases had Her-
bert's rosette with dichotomous
neovascularization.

* Vernal pannus was met with in
summer months in severe cases of
spring catarrh. The average age was 11
years with male preponderance 80 %
(Tobgy 1933). This pannus was more
common in the upper part. A charac-
teristic feature of vernal pannus is
white hyaline Tranta's spots. It has
straight neovessels.

* Phlyctenular pannus: The aver-
age age was 6 years and more com-
mon in females 65 %, of poor commu-
nities. It was more predominant in
spring. It affects any part of the cor-
nea. Pannus is thin and had straight
neovessels (Hassan 1968).

* Glaucomatous pannus: it was
found in eyes with absolute glaucoma
associated with bullous keratopathy
(Peyman 1980).

* Leprotic pannus was found in
very chronic cases associated with
other complications as uveitis and
glaucoma.

* Herpetic pannus was found in re-
sistant recurrent cases (Grayson
1979).

* Traumatic pannus due to pro-
longed use of soft contact lenses was
met with in a case of bilateral extended
wear contact lenses after prolonged
wearing continuously for 6 months
(Dixon 1967).
TOTAL NUMBER: 100 EYES
SEX INCIDENCE: FEMALES 60%  MALES 40%
AGE INCIDENCE:

<table>
<thead>
<tr>
<th>TYPE OF PANNUS</th>
<th>AGE IN YEARS</th>
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<tbody>
<tr>
<td></td>
<td>RANGE</td>
</tr>
<tr>
<td>TRACHOMATOUS</td>
<td>1-2</td>
</tr>
<tr>
<td>PHLYCTENULAR</td>
<td>4-12</td>
</tr>
<tr>
<td>VERNAL</td>
<td>6-20</td>
</tr>
<tr>
<td>GLAUCOMATOUS</td>
<td>50-80</td>
</tr>
<tr>
<td>LEPROTIC</td>
<td>40-60</td>
</tr>
<tr>
<td>HERPETIC</td>
<td>20-40</td>
</tr>
<tr>
<td>SOFT C.L.</td>
<td>20</td>
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CLINICAL AND ETIOLOGICAL TYPES:

<table>
<thead>
<tr>
<th>TYPE OF PANNUS</th>
<th>%</th>
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<tbody>
<tr>
<td>TRACHOMATOUS</td>
<td>45</td>
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<tr>
<td>VERNAL</td>
<td>27</td>
</tr>
<tr>
<td>GLAUCOMATOUS</td>
<td>13</td>
</tr>
<tr>
<td>PHLYCTENULAR</td>
<td>9</td>
</tr>
<tr>
<td>LEPROTIC</td>
<td>3</td>
</tr>
<tr>
<td>HERPETIC</td>
<td>2</td>
</tr>
<tr>
<td>SOFT C.L.</td>
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# LATERALITY

<table>
<thead>
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<th>TYPE OF PANNUS</th>
<th>BILATERAL</th>
<th>UNILATERAL</th>
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<tbody>
<tr>
<td>TRACHOMATOUS</td>
<td>80 %</td>
<td>20 %</td>
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<tr>
<td>VERNAL</td>
<td>90 %</td>
<td>10 %</td>
</tr>
<tr>
<td>PHLYCTENULAR</td>
<td>100%</td>
<td>--</td>
</tr>
<tr>
<td>GLAUCOMATOUS</td>
<td>100%</td>
<td>--</td>
</tr>
<tr>
<td>LEPROTIC</td>
<td>100%</td>
<td>--</td>
</tr>
<tr>
<td>HERPETIC</td>
<td>---</td>
<td>100%</td>
</tr>
<tr>
<td>SOFT C.L.</td>
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# ASSOCIATED CORNEAL PATHOLOGY

<table>
<thead>
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<th>CORNEAL PATHOLOGY</th>
<th>NUMBER</th>
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<tbody>
<tr>
<td>ARCUS SENILIS</td>
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</tr>
<tr>
<td>DEGENERATIONS</td>
<td>11</td>
</tr>
<tr>
<td>HYALINE</td>
<td>7</td>
</tr>
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<td>SALZMANN</td>
<td>4</td>
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<tr>
<td>ULCERS</td>
<td>10</td>
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<td>PHLYCTENULAR</td>
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<tr>
<td>CATARRHAL</td>
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<tr>
<td>PTERYGIA</td>
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<tr>
<td>KERATECTASIA</td>
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<td>EPITHELIAL HYPERPLASIA</td>
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<tr>
<td>EPITHELIAL PLAQUE</td>
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REFERENCES


ملخص البحث

أجري هذا البحث لدراسة الأنواع الأكلينيكية لسبيل القرنية الموجودة بالمرضى المشفدين على العبادة الخارجية بمستشفى النصرة الجامعي.

1 - كان المجموع الكلي لعدد الحالات 100 عين 60% من الذكور 40% من الإناث.

2 - وكانت الأنواع الأكلينيكية كالآتي:

- سبيل المردم الحبيبي 45% - سبيل المردم الريعي 27%.
- سبيل الجلوكوما الضرير 13% - سبيل المردم الريعي 9%.
- سبيل الجزار 13% - سبيل الهريس 2%.
- سبيل بسبب الاستخدام الطويل للعدسات الرخوة المتصغرة 1%.

3 - وكان متوسط عمر المرضى كالآتي:

- سبيل المردم الحبيبي 5 سنة - سبيل المردم الريعي 6 سنوات.
- سبيل المردم الريعي 11 سنة - سبيل العدسات المتصغرة 20 سنة.
- سبيل الهريس 30 سنة - سبيل الجزار 50 سنة.
- سبيل الجلوكوما 60 سنة.

4 - وكانت نسبة السبل في عين واحدة:

- الهريس 100% - المردم الحبيبي 20% - المردم الريعي 10%.

أما سبيل العينين فكان:

- 100% في كل من سبيل المردم الريعي والجلوكوما والجزار والعدسات المتصغرة.
- 90% في المردم الريعي - 80% في المردم الحبيبي.

5 - ووجد مع السبل في بعض الحالات تغيرات بالأناتوجفية أخرى بالقرنية كالآتي:

- حلقة الشيهوخة في 13 عين - تحلبات بالقرنية في 11 عين.
- قرح بالقرنية في 10 عيون - ظفرة في 7 عيون.
- بروز مخروطي بالقرنية في 3 عيون - أورام حبيبة في 2 عين.

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