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|  | **Tinea versicolor** [ pityriasis versicolor]  | **Tinea Nigra**  | **(piedra )**Black Piedra  | **(piedra)**White Piedra  |
| **Clinical Features**  | -Brown or discolored, or white patches on skin.  | - Macular brown lesions on palm [ T.N Palmaris] or sole [T.N plantaris]  | -Firm nodules on hair- shaft -dark grown  | -Loose nodule in hair- shaft -Creamy  |
| **Epidemiology**  | -Found anywhere in the world. -Affect any age and sex.  | -Found in tropic and sub-tropic areas.  | -Found in tropic and sub-tropic areas.- not common in KSA  | -Found in tropic and sub-tropic areas. -Most common in KSA  |
| **Source**  | =Endogenous  | =Exogenous by piercing  | =Exogenous  | =Exogenous  |
| **Etiology**  | Malassezia fur fur [pityrosporum Orliculare]- lipophilic Fungus  | Pheoannellomyces werneckii [exophiala werneckii] | -Piedraia Hortae  | -Trichosporon beigelii  |
| **Type of Fungus**  | -Yeast -Fast growing  | -Dematiaceous imperfect mold- slow growing  | -Perfect mold -Slow growing  | -Imperfect yeast -Fast growing  |
| **Chronic or acute**  | Chronic  | Chronic  | Chronic  | Chronic  |
| **Transmission of infection**  | Not contagious  | Not contagious  | Not contagious  | Not contagious  |

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|  | **Rhinosporidiosis**  | **Lobomycosis**  | **Phaeohyphomycosis**  | **Chromoblastomycosis ( chromo mycosis)**  | **Sporotrichosis**  |
| **Clinical Features**  |  +Mucocutaneous- lesion: polyps, papilloma and wart- like.  | - Cutaneous and subcutaneous. -lesion: keloidal, Verrucoid, noclular.  | -Subcuteness or cerebral - Lesions are abcasses  | - Subcutaneous -lesion: Hyperkeratatic verrucous. Pedenculus violaceaus, cauliflower  | -Lympho coetaneous and subcuetaneous -lesion: noclulor or ulcers,  |
| **Source**  | -Exogenous  | -Exogenous  | -Exogenous  | -Exogenous  | -Exogenous  |
| **Type of Fungus**  | -Parasitic Fungus  | -Parasitic Fungus  | -Dematiaceous imperfect modd Fungi  | -Dematiaceous imperfect mold fungi  | -Dimorphic Imperfect fungi  |
| **Etiology**  | -Rhinosporidium Seeberi. | -Lacozia loboi ( loboa loboi ) | 1)Cladosporium2)Exophiala 3)wangiella 4)Cladophialophora bantiana. 5)Ramichloridium mackinziei 6) Bipolaris 7)Drechslera 8)Rhinocladiella  | 1)Phialophora verrucosa. 2)Fonsecaea pedrosoi 3)Exophiala 4)Cladosporium  | -Sporothrix schenckii  |
|  |  | Chronic and localized  |  | Chronic  |  |
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|  | **Blastomycosis**  | **Histoplasmosis** **[cave Disease]**  | **Coccidioidomycosis** **[ valley Fever]**  | **Paracoccidiodo- mycosis**  |
| **Clinical** **Features**  | -Start as pulmonary, if not treated, it will disseminates to other organs- interstitial( not intercellular)- not self limiting- primary infection  | -Starts as respiratory -self – limiting -Intracellular  | -Starts as respirator if not treated.>>>>disseminate -Self limiting  | Start as respiratory+ ulcers in buccal mucosa + lymphadenopathy |
| **Epidemidogy**  | Common in US especially in states around Missisispi River  | -Common in US -Rare in KSA  | -Endemic in southwestern U.S  | -More seen in south America  |
| Source  | Exogenous  | Exogenous  |  |  |
| Type **of** Fungus  | -Dimorphic:-= **mold** in nature =**yeast** in human body .-imperfect monileceous fungus - fast grawing  | -Dimorphic -Imperfect monilieceous fungi- slow growning  | -Dimorphic [ spherules] -Imperfect monilieceous fungi  | -Dimorphic -Imperfect monilieceous fungi  |
| **Chronic or a cute**  | Chronic  | Chronic  |  |  |
| **Etiology**  | -Blastomyces dermatitidis \* perfect stage Ajellomyces- dermatitidis  | -Histoplasma Capsulatum. \*Perfect stage Ajellomyces- capsulattus  | -Coccidioides immitis  | -Paracoccidioides Brasiliensis  |

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|  | **Pneumocystosis=** **PCP** | **Candidiasis**  **[ candidosis]** | **Cryptococcosis** | **Trichosporonosis** | **Geotrichosis** |
| **Clinical** **Features**  | -Interstitial pneumonia -Common in AIDS patient.  | See page 53  | -Cause meningitis And /or pulmonary  | -Pulmonary Infection  | -Pulmonary Infection  |
| **Source**  | -Contracted in childhood and appear in adult  | Endogenous  |  |  |  |
| **Type of** **Fungus**  | -Opportunistic  | -Opportunistic-Imperfect yeast fungi -fast growing  | -Opportunistic -True yeast -Encapsulated -Fast growing  | -Opportunistic -Not true yeast -Fast growing  | -Opportunistic -Not true yeast -Fast growing  |
| **Etiology**  | -Pneumocystis Carinii  | 1)Candida albicans 2)c. glabrata 3)c. tropicalis $)c. krusei c. parapsilosis  **\* other yeast that may cause candidiasis:-** 1)saccharomycescerevisiae 2)trichosporon beigellii 3) rhodotorula species  | - CryptococcusNeoformans\* perfect stage:-Filobasidiella neoformans | - trichosporon beigelii | -geotrichum candidum |

**Zygomycosis [ phycomycosis]**

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|  | **Subcutaneous**  | **Rhinocerebral****Mucoromycosis**  | **Pulmonary**  | **Gastrointestinal**  | **Common** **Features**  |
| **Clinical** **Features**  | -Localized subcutaneous masses (cellutitis) -No sinuses, No abscesses -Rhinofacial is common site  | - Paranasal sinusitis and or late cellulites - affect compromised patient with diabetes and ketoacidosis  | **Similar to rhinocerebral****zygomycosis** | -Lesions are masses or abscesses in liver and interestine mainly. - seen in children  | Zycomycosis Coused by Zygomycete fungi two orders 1)Mucorales 2)Entomoph- thoraces **\*All of them are**:- 1) monilieceous Molds 2)Perfect 3)Non septate 4)Fast growing  |
| **Source**  | Exogenous  | Exogenous  | **Similar to rhinocerebral** | Exogenous  |
| **Etiology**  | 1)Conidiobolus coronatus 2)Basidiobolus Ranarum **(both** **Entomophthorales)**3)Few mucorales  | Rhizopus Mucar AlbisidiaRhizomucar All of them are mucorales  | **Similar to rhinocerebral** | Basidiobolus ranarum  |
| Chronic or a cute  | Chronic  | Acute, very serious and Fatal  | Chronic or acute chronic  | Chronic  |
|  | -Non opportunistic [primary pathogen] | -Opportunistic  | -Opportunistic  |  |

**\*Dermatophytoses\***

**[Cutaneous mycosis]**

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| **Clinical Features**  | * Skin lesions with itching. – they affect both dead
* Present anywhere in body. And living tissue, utilize
* Infected hair fall off . keratin to grow.
 |
| **Epidemiology**  | * Found everywhere in the world.
* Affect adults and children [ more seen in school aged children]
 |
|  | * Chronic – contagious – exogenous from infected person and animals
 |
| **Type of Fungus**  | * Imperfect moniliaceous mold fungi. [ primary pathogens ]
 |
| **Etiology** **(3 genera )** |  **1)Trichophyton [ 20spp] 2)Microsporum [17 spp]** a) T. mentagrophytes b) T, verrucosum zoophlic a)M. canis>> Zoophile, most common in KSA c)T, violaceum d) T. rub rum anthropophilic b)M. audouinii >> anthropophilic \* all of them most common in KSA c)M. gypseum>> geophilic  \* infect skin and hair only **[ not nails]**  \* infect skin. Hair. Nails **3)Epidermophyton floccosum**>>> anthropophilic * Infect skin and nails **[ not hair]**
* Common in KSA
 |
| Characteristics  | 1. Produce alkaline substance.
2. Sensitive to griseofulvin.
3. Resistant to cyclohexamide
4. Have peculiar (special) hyphal structures.
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**Mycetoma**

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|  | **Eumycetoma**  | **Anctiomycetima**  |
| **Clinical Features**  | -Localized subcutaneous infection that involve underlying bone later in the disease course. - Main symptoms are:-  1) cold swelling. 2) formation of sinuses that drain pus 3) presence of grains with different colors.- infection is a acquired following trauma to the skin.  |
| **Epidemiology**  | - Found in tropics and subtropics - Affect male and females but more seen in adult . |
| **Source**  | Exogenous. Exogenous  |
|  | -Very chronic. -Very chronic -Not contagious. - Not contagious  |

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| **Etiology**  | - Mold fungusــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــ1)Madurela: a) m. mycetomatis – imperfect fungus.- Black grains. – brown colony b-)M. grisea – imperfect dematieceous fungus.- Black grains. – gray colony2) a- pseudallescheria boydii- perfect fungous -white grainb- scedosporium ampiospermum [imperfect]-imperfect fungus -white grains - moniliaceous 3) Pyrenochaeta 4)Acremonium5)Leptospheria>> perfect 6) Neotestudina  | -Filamentous higher bacteria [ gram positive ]ـــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــ1. streptomyces somaliensis

-Yellow grains- most common in KSA 2)Actinomadura Madurae 3)Actinomadura pelletieri 4)Norcardia brasiliensis 5) N. asteroids 6) N. caviae 7)N. coeliaca  |