KOH PREPARATION
The KOH-digested (potassium hydroxide) direct microscopy of specimens is a simple and accurate tool for detection of fungal infections. Direct microscopy is used to examine scale, nail, and hair treated with KOH (10-20% potassium hydroxide solution, often dissolved in glycerol 20% and sterile distilled water). The fungal digest is then viewed under the microscope. Sometimes, lactophenol cotton blue, Parker Blue® ink, Blankophor®, or Calcoflour® white may be added to highlight the fungal elements. With Calcoflour® white or PAS staining, the sensitivity may increase to 90%.

The scraping or clipping is placed on a slide and KOH solution is dropped on it. The process is hastened by heating with the flame from a match or an alcohol lamp. The slide is then viewed for presence of fungal hyphae (dermatophytes and molds), clustered and thick walled small yeast cells with short filaments (Malassezia sp.), and budding yeast cells and pseudohyphae (Candida sp.). No laboratory test is ever 100% accurate.

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