Client: Example Client ABC123
123 Test Drive

UNITED STATES

Physician: Doctor, Example

Patient: Patient, Example

DOB

Sex:

Patient Identifiers: 01234567890ABCD, 012345

Visit Number (FIN): 01234567890ABCD

Collection Date: 01/01/2017 12:34

Direct Immunofluorescence, Tissue Biopsy (Cutaneous, Mucosal, Epithelial)

ARUP test code 0092572

Cutaneous Direct IF, Biopsy

See Note

CLINICAL INFORMATION
Erythematous and urticarial plaques with occasional blisters, possible immune-mediated

Specimen Details
B22-00876 A - Left arm, punch, perilesional, sun-exposed;
Collected: ; Received:

DIAGNOSTIC INTERPRETATION

Nondiagnostic direct immunofluorescence findings

(See Results and Comments)

RESULTS
Examination of skin tissue specimen tested for immunoglobulins, complement, and fibrinogen reveals:

IgG: Negative

IgG4: Negative

IgM: 3+ few scattered and clumped cytoids

IgA: Negative

C3: Weak focal granular basement membrane zone

Fibrinogen: 2+ patchy deposition on connective tissue fibers

COMMENTS
The direct immunofluorescence findings in this specimen are nonspecific and can be found in several inflammatory conditions including dermatitis of various etiologies, urticarial reactions, and drug eruptions.

There is no evidence of basement membrane zone or cell surface antibodies to indicate pemphigoid, epidermolysis bullosa acquisita, linear IgA disease, or pemphigus. IgG4 subclass staining was performed because it may be more sensitive than IgG in some patients with immunobullous disease but did not provide additional positive findings. Ten tissue sections were stained for IgA, rather than the usual three performed in this test, but did not reveal additional findings for IgA antibody-associated

diseases including linear IgA bullous dermatosis, dermatitis herpetiformis, IgA vasculitis, or IgA pemphigus.

The granular immune deposits along the basement membrane zone are insufficient for lupus erythematosus, a lupus band, or the characteristic findings in hypocomplementemic urticarial vasculitis. There is no evidence of other types of immune-mediated vasculitis. There are no lichenoid features in this specimen. Correlation with histopathological examination of formalin-fixed tissue is recommended.

If indicated to further evaluate for immunobullous disease, serum testing for basement membrane zone and cell surface epithelial antibodies can provide helpful immunopathological information and can be accomplished by submitting a serum specimen through ARUP Laboratories for:

- Immunobullous Disease Antibody Panel (ARUP test number 3001409);
  OR
- Basement Membrane Zone Antibody Panel(ARUP test number 3001410),
- Pemphigus Antibody Panel, IgG (ARUP test number 0090650), and/or
- Pemphigus Antibodies, IgA by IIF (ARUP test number 0092106).

Contact ARUP Client Services, 1-800-242-2787, option 2, for assistance, if needed.
An additional perilesional biopsy specimen from a proximal anatomical location for direct immunofluorescence also may be helpful in further defining the immunopathological profile in a patient with an immunobullous disease.

If indicated to further evaluate for non-blistering, immune-mediated disease, an additional lesional biopsy specimen from fresh intact lesional tissue for direct immunofluorescence may provide more definitive immunopathological findings.

TESTING METHODS
The tissue specimen from perilesional arm skin received in Michel transport medium, is washed, cryoembedded, cryosectioned, and sections reacted with fluorescein isothiocyanate (FITC)-conjugated antibodies to IgG, IgG4, IgM, IgA, C3, and fibrinogen. IgG4 subclass staining is performed because IgG4 reactivity may be more sensitive than IgG in some immune-mediated diseases. The stained tissue sections are examined by fluorescence microscopy to identify patterns of positive reactivity that aid in the diagnosis of immune-mediated diseases. Positive findings are graded on a visual analog scale of 0-3+ (weak - detected; 1+ - definite, but relatively slightly, positive; 2+ - moderately positive intensity; 3+ - strongly positive). Negative control serial sections exposed to bovine serum albumin (BSA) without antibody and a technically adequate hematoxylin and eosin (H and E)-stained slide are prepared and also examined for comparison to specific staining and for morphological orientation and features. This direct immunofluorescence (DIF) testing was developed and its performance characteristics determined by the Immunodermatology Laboratory at the University of Utah. It has not been cleared or approved by the FDA (US Food and Drug Administration). FDA clearance or approval currently is not required for this testing performed in a CLIA-certified laboratory (Clinical Laboratory Improvement Amendments) and intended for clinical use.

Electronically signed by , MD, on
at .
Performed At:

Medical Director: , MD

H=High, L=Low, *=Abnormal, C=Critical

CLIA Number:

EER Cutaneous Direct IF, Biopsy

See Note

Authorized individuals can access the ARUP Enhanced Report using the following link:

https:

VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
Cutaneous Direct IF, Biopsy	22-173-114159			
EER Cutaneous Direct IF, Biopsy	22-173-114159			

END OF CHART

H=High, L=Low, *=Abnormal, C=Critical