```
choose_true  THM

⊢  ∀'a:Type, P:('a→Prop), x:'a. P(x) ⇒ P(@x:'a. P(x))
| by Unfold `choose` 0
|
1. 'a : Type
2. P : 'a→Prop
3. x : 'a
4. P(x)
⊢  P(InjCase(lem({x:'a| P(x) }); x. x, arb('a)))
| by GenDC (lem({x:'a| P(x) }))
|
|\
| 1. 'a : Type
| 2. P : 'a→Prop
| 3. x : 'a
| 4. P(x)
| 5. x2 : {x:'a| P(x) }
| ⊢  P(x2)  by AddEMHyp THEN Analyze 5
|
.\
. 1. 'a : Type
. 2. P : 'a→Prop
. 3. x : 'a
. 4. P(x)
. 5. {x:'a| P(x) }→Void
. ⊢  P(arb('a))  by Analyze 5
. |
. .....antecedent .....
. 1. 'a : Type
. 2. P : 'a→Prop
. 3. x : 'a
. 4. P(x)
. 5. {x:'a| P(x) }→Void
. ⊢  {x:'a| P(x) }  by DTerm x 0
END
```